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ABSTRACT

A study was conducted to determine factors leading to the success of General Educational Development (GED) recipients at North Shore Community College (NSCC). The sample population consisted of 160 GED recipients who had attended more than one semester at NSCC, declared a major, and earned a grade point average (GPA) of at least 1.00. The survey asked students for background information, reasons they enrolled in the GED program, post-GED college experiences, and suggestions for the program. Responses from 87 students were analyzed to identify the most significant factors influencing the success of GED recipients in higher education. Data indicated that GED recipients enrolled, matriculated, and earned above average cumulative GPA's in higher education. Significant factors in GED recipients' college success included self-motivation; referral/support of family, friends, and college staff; consistent contact with one program coordinator and/or advisor; and use of college services. Six relevant factors were also identified: (1) participation in a formal GED preparation program and formal completion of at least the 10th grade facilitated success in higher education; (2) age was not a significant determinant of success; (3) those with higher GED scores did not necessarily go on to earn higher cumulative GPA's; (4) working full-time seemed to negatively influence academic achievement, while working part-time seemed to have no influence; (5) in a multi-campus setting, class attendance at two campuses had little effect on cumulative GPA's; and (6) students who used public transportation to get to campus appeared to have lower cumulative GPA's than those who drove. Appended are the survey instruments, data highlights and analysis, and a detailed description of the research methodology. (WJT)

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**A MANDATE FOR THE 90'S: RESEARCH ON
SUCCESS OF GENERAL EDUCATIONAL DEVELOPMENT
(GED) RECIPIENTS IN HIGHER EDUCATION**

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**A MANDATE FOR THE 90'S: RESEARCH ON THE SUCCESS
OF GED RECIPIENTS IN HIGHER EDUCATION**

**FINDINGS OF A STUDY COMPLETED ON 160 SUCCESSFUL
GED RECIPIENTS AT NORTH SHORE COMMUNITY COLLEGE**

HIGHLIGHTS OF DATA AND ANALYSIS

Success

1. Analysis of all data showed that GED recipients are enrolled, matriculated, and earning above average cumulative grade point averages (CGPAs) in higher education.
2. Academic performance was not influenced by enrollment in the Day Division or the Division of Continuing Education and Community Services (evening and summer).
3. Academic performance was not influenced by attending consecutive semesters only or interrupted attendance.

Significant Factors

1. Self-motivation is a key factor in college success for students starting with a GED. The majority of successful students are aware of college opportunities as they have reviewed brochures/catalogues and made a decision to enroll prior to obtaining a GED.
2. The referral/support of family/friends AND college staff is significant in maximizing GED completion, enrollment, and continued attendance in college.
3. Consistent contact with one program coordinator and/or advisor is a major factor in maximizing the opportunity for success.
4. Successful students use college services and are satisfied with services received.

Other Relevant Factors

1. Attendance in a formal GED preparation program AND formal grade level completion above grade 10 facilitates success in higher education.
2. Age of completing GED and age of GED student enrollment in college are not significant factors in determining success.
3. GED scores most likely cannot be used as CGPA predictors (i.e., those with higher GED scores will not necessarily earn higher CGPAs).
4. Most GED recipients are working and have family responsibilities. Working part-time (20 hours or less) seems to have no influence on academic achievement, whereas working full-time (35 hours or more) has a negative influence.
5. In a multi-campus setting, attendance of classes at two campuses seems to have little effect on cumulative grade point averages.
6. Most successful students will drive to the campus rather than use public transportation. Those students who use public transportation appear to have lower CGPAs.

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**A MANDATE FOR THE 90'S: RESEARCH ON
SUCCESS OF GENERAL EDUCATIONAL DEVELOPMENT (GED)
RECIPIENTS IN HIGHER EDUCATION**

INTRODUCTION

Like many educators directly involved in, or supporting the General Educational Development (GED) Testing Program, I have long believed that we have a social responsibility to promote the acceptability of the State High School Equivalency Certificate as a credential equivalent to a high school diploma.

Over the years, I have listened to clients' cries of joy when they heard that they had successfully passed the GED battery; to graduates of preparation programs proudly discuss their achievement; and to college graduates share their stories of access and success. I have always wondered what the factors of success were for GED recipients who enrolled and graduated from college because I wanted to be able to share such information with GED applicants and educators who are involved in supporting them.

The intent of my study is to determine factors which lead to GED recipient success in college in order to facilitate GED testing, GED preparation, and college programs in maximizing future recipient success. Part I discusses the mandate, describes and summarizes the research process, the analysis conducted, and presents the general results. Part II provides recommendations and discusses the implications. The instruments and data and analysis are in the Appendices, followed by the Bibliography. The Addendum includes the detailed data and analysis of the study.

In summary, **A Mandate for the 90's: Research on Success of General Educational Development (GED) Recipients in Higher Education** identifies four (4) major factors which are significant to the success of the GED recipient in higher education and an additional six (6) factors which should be taken into consideration when establishing programs in order to facilitate success for all GED recipients. The report also provides recommendations and discusses how research findings can be used to help GED recipients enroll in, and complete, programs at North Shore Community College.

My hope is that others involved with GED preparation programs will consider the seven-step research model and that GED research will be a mandate for the 1990's for those of us interested in the credibility and use of this credential.

PART I: RESEARCH STUDY

A. MANDATE

As the Chief Examiner for GED and the Director of the Center for Alternative Studies at North Shore Community College, I am asserting that adult and higher education leaders must provide evidence that students who earn a State High School Equivalency Diploma by passing the General Educational Development (GED) Tests can be successful in higher education. I strongly believe that using this evidence and reviewing institutional programs will assure equal access and retention.

North Shore Community College

As of the Spring Semester of 1989, North Shore Community College, a 24 year-old Massachusetts institution, provides services for 3,100 Day Students. The Division of Continuing Education and Community Services, operating on tuition generated income, enrolls an additional 5,000 students. There are fifty-six academic programs consisting of thirteen transfer programs and forty-three career programs.

Organizationally, the College has four major components: Academic Affairs, Student Services, Division of Continuing Education and Community Services, and Administrative Services. The Academic Affairs component consists of the Learning Resource Center, the Center for Alternative Studies, and seven Academic Divisions: (1) Human Services; (2) Allied Health; (3) Nurse Education; (4) English and Communications including Special Programs, English as a Second Language and Academic Assistance supporting all components; (5) Humanities and Social Sciences; (6) Business Sciences; and (7) Science and Mathematics. Academic advising is considered the responsibility of the Academic Affairs component. The Student Services component consists of the Offices of the Registrar, Admissions, Financial Aid, Alumni Association, Health Services, Placement, and the Counseling Center. The Division of Continuing Education and Community Services is responsible for evening and summer credit as well as non-credit courses. This Division collaborates with Academic Affairs and Student Services in order to serve potential and enrolled students during day and evening hours, particularly in providing tutoring and counseling. Administrative Services includes the Office for Human Resources and the Business Office, as well as a Centralized Computer Service which provides for both North Shore Community College academic and administrative support and external support of a major six-college automated library network.

General Educational Development Program Involvement

For over fourteen years, North Shore Community College has operated a GED Testing Center and has provided GED preparation classes as well as individualized tutorial services.

During the first two years, as the Assistant to the Dean of the Division of Continuing Education and Community Services, I established the College as a GED Testing Center and insured that preparation classes would continue to be offered. I then became the Director of the newly created Center for Alternative Studies, and GED Testing Services became the responsibility of the Center. Over the next twelve years, individualized GED tutorial services superseded formal GED preparation classes. In 1983, the Adult Learning Center was established with Adult Basic Education funds and has been conducting tutorial services since that time. At the end of the 1988 calendar year, nearly 5,500 individuals had successfully passed the battery of tests. I continue to serve as a GED Chief Examiner, and my assistant serves as Director of the Adult Learning Center.

B. RESEARCH PROCESS

Initiation

As the Chief Examiner of the GED Testing Center and the Director of the Center for Alternative Studies, I was well aware that a number of GED recipients had enrolled at North Shore Community College. Annual statistics showed that over 20 percent of each graduating class had started college with a GED (110 to 140 students). At least one-half of these students passed their GED at our Center.

In order to conduct a study to define the success of GED recipients and identify the factors which led to success, I established a research team consisting of myself and two Testing Coordinators, Yvonne Duerr and Nancy L. Murphy. Later, after the team had completed the initial work, Betty Wintersteen, Office Manager at the Center for Alternative Studies, assisted me in the compilation of data, analysis, and editing.

When I began this study, I anticipated the results could be used to improve GED Preparation and Testing Services at North Shore Community College. I also felt the results could be used to help new GED applicants/recipients make the transition to College enrollment. Further, I believed that by sharing information with College instructional, advising, counseling, and other academic support services, retention could be improved.

An initial literature search revealed that very little work had been completed on the success of GED recipients in college. Thus, I quickly became aware that the results of this study could generate nationwide implications for individuals interested in GED recipient access and retention in college.

Bean and Metzner, who conducted an extensive review of the research to date, state the need implicitly:

The need for additional research about the attrition of older, part-time, and commuter undergraduate students enrolled in courses for college credit has been well documented (Knoell, 1966; Lenning, Beal, and Sauer, 1980; Tinto, 1975, 1982; Zaccaria and Creaser, 1971). Although older and part-time students have sometimes been included with traditional students in studies of attrition, little research has been devoted exclusively to these non-traditional students beyond a simple tabulation of the dropout rate. (Bean and Metzner, p. 485.)

Hopefully, the model presented along with the research results will serve as an impetus.

The Seven-Step Research Model and Research Procedures

My major focus was to generate useful data that would enhance opportunity for success in college for GED recipients. The seven-step model which emerged is as follows:

- Step 1: Determine research questions and objectives, define terms, identify factors of significance, and establish a methodology.
- Step 2: Create database and examine general trends pertaining to selected factors: cumulative grade point average (CGPA), program of study, enrollment division(s) of college, and pattern of attendance.
- Step 3: Design, administer and analyze the results of a student survey to determine GED recipient perception of: motivation to enroll; accessibility, satisfaction, and use of support services; and need for special program(s) or assistance.
- Step 4: Design, administer, and analyze the results of a survey for college faculty/staff and/or agencies/businesses to determine perceptions of reasons for success.

- Step 5: Review results of two surveys along with general trends.
- Step 6: Compare findings with results of studies published to date.
- Step 7: Complete final report and make recommendations to local, regional, and national leaders.

Determination of Purpose

At the planning and design stage, I decided that the major purpose of the research would be to analyze the data available pertaining to currently enrolled GED recipients who were succeeding at North Shore Community College. The approach would be to develop a mechanism to "listen to" students. I chose not to focus on whether or not students who started college with a GED failed or dropped out.

Definition of a GED Student as a Successful Student

Students initially defined as "successful at North Shore Community College" had (1) attended more than one semester; (2) matriculated into a specific program of study; and (3) earned a Cumulative Grade Point Average (CGPA) of at least 1.00. At North Shore Community College, a CGPA of 3.00 to 4.00 represents a B to A+; a 2.00 to 2.99, represents a C to B-; and a 1.00 - 1.99, represents a D to C-. A grade of D is considered passing, although a cumulative average of 2.00+ is required for graduation.

General Sample

The general sample population of 160 students was located by using the College's Student Demographic File. Data was entered on an IBM PC/XT and prepared for analysis by using adapted software for D Base III. This process allowed examination of general trends according to cumulative grade point averages in relation to program of study, division of enrollment, and enrollment pattern.

Survey Samples

To verify the general data and to expand inquiry, I designed and administered separate student and faculty surveys.

The Student Survey was mailed to 160 students in May of 1987. Forty students responded by the deadline. In July, a telephone follow-up to non-respondents and a second mailing prompted forty-seven additional returns. (A copy of the Student Survey can be found in Appendix A.)

To identify reasons for success as perceived by students, the student survey consisted of nineteen items. It was divided into three sections:

BACKGROUND INFORMATION included items on program of study; age at GED completion and College enrollment; work status; and use of public transportation.

EDUCATION included two sub-sections: **BEFORE TAKING THE GED** focused on preparation program participation; formal grade level completed; why and when students decided to enroll; how they heard about the College; and who referred them. **AFTER TAKING THE GED-COLLEGE** focused on external and internal College support; pattern of attendance; and satisfaction in use of College services.

HELPING OTHERS START COLLEGE WITH A GED requested an opinion on the need for special services and asked for suggestions as well as an indication of interest in volunteering to support the program.

Responses were analyzed to identify (a) the most significant factors influencing success of GED recipients in higher education and (b) other relevant factors for the College to consider when developing programs to provide access and retention of the GED recipient.

I then prepared a Faculty Survey consisting of twelve questions designed to elicit faculty perceptions of the reasons for GED recipient success. Within each Academic Cluster, I interviewed from one to three individuals, e.g., Division Chairpersons, Department Chairpersons and/or Faculty Members. Eighteen individuals, all of whom had contact with GED recipients, answered the survey.

The results of the Faculty Survey were compared with the results of the Student Survey to match faculty/student perceptions of successful behaviors. (A copy of the Faculty Survey can be found in Appendix A.)

Final Analysis and Recommendations

The final steps included the analysis and comparison of results with published findings of related research. On the basis of the results of the study, a series of recommendations were developed to guide the development of GED programs, to encourage institutional responsiveness, and to guide further research. These recommendations and discussion follow in Part II.

Description of Study Sample

The study addressed a representational group of 160 GED recipients who had met the criteria of "success" at North Shore Community College. Each member of the group had enrolled in one or more credit courses in the Fall Semester of 1986 and had earned a Massachusetts State High School Equivalency Certificate by successfully passing the General Educational Development Tests between 12/31/77 and 9/6/86. Twenty-seven students had completed testing at North Shore Community College. The Student Survey sample consisted of 87 of the 160 students who responded to the survey; the Faculty/Staff Survey sample included eighteen professionals representing six academic clusters.

Description of Analysis

In order to identify how GED students performed academically at North Shore Community College, I reviewed the students' cumulative grade point average (CGPA) in relation to their program of study. Students were identified in one of six academic program clusters: (1) Health, i.e., Physical Therapist Assistant, Respiratory Therapy, and Nurse Education; (2) Human Services, i.e., Paralegal, Early Childhood Education, Alcohol Counseling, Mental Health, Gerontology/-Social Welfare, Mental Retardation, and Criminal Justice; (3) Liberal Arts and Special Programs, i.e., General Studies, Liberal Arts, Interdisciplinary Studies, Motivation to Education, and Unspecified; (4) Office Technology, i.e., Executive Secretarial, Medical Secretary, and Office Information Processing; (5) Business, i.e., Aviation Science, Business Administration, Finance, Marketing, Management, Business Transfer, and Computer Programming; and (6) Industrial Technology, i.e., Electro-Mechanical Technology, Engineering Science, Pre-Engineering, Manufacturing Engineering Technology, Quality Control, and Computer Aided Design/Computer Aided Manufacturing.

Within each program cluster, I grouped students as follows:

- o CGPA: 3.00 - 4.00; 2.00 - 2.99; 1.00 - 1.99.
- o Division of College: Day only; Evening only; Mixed Day and Evening.
- o Enrollment Patterns: (i) continuous -- meaning attending all Fall and Spring semesters sequentially; (ii) mixed -- meaning attending at least two semesters consecutively, but not all (this category included students who were enrolled off and on for up to ten years); and (iii) sporadic -- attending no two semesters consecutively.

Through the analysis of the survey and the general data, I was able to establish the model which could be replicated. Second, I identified the most significant factors influencing success for GED recipients in higher education. Third, I identified other relevant factors that should be taken into consideration when setting up programs to facilitate educational success for all GED recipients.

C. SUMMARY OF CRITICAL FINDINGS

Success

1. Analysis of all data showed that GED recipients were enrolled, matriculated, and earning above average cumulative grade point averages (CGPAs) in higher education.
2. Academic performance was not influenced by enrollment in the Day Division or the Division of Continuing Education and Community Services (evening and summer).
3. Academic performance was not influenced by attending consecutive semesters only or interrupted attendance.

Significant Factors

1. Self-motivation is a key factor in college success for students starting with a GED. The majority of successful students are aware of college opportunities as they have reviewed brochures/catalogues and made a decision to enroll prior to obtaining a GED.
2. The referral/support of family/friends AND College Staff is significant in maximizing GED completion, enrollment, and continued attendance in college.
3. Consistent contact with one program coordinator and/or advisor is a major factor in maximizing the opportunity for success.
4. Successful students use college services and are satisfied with services received.

Other Relevant Factors

1. Attendance in a formal GED preparation program AND formal grade level completion above grade 10 facilitates success in higher education.
2. Age of completing GED and age of GED student enrollment in college are not significant factors in determining success.

3. GED scores most likely cannot be used as CGPA predictors (i.e., those with higher GED scores will not necessarily earn higher CGPAs).
4. Most GED recipients are working and have family responsibilities. Working part-time (20 hours or less) seems to have no influence on academic achievement, whereas working full-time (35 hours or more) has a negative influence.
5. In a multi-campus setting, attendance of classes at two campuses seems to have little effect on cumulative grade point averages.
6. Most successful students will drive to the campus rather than use public transportation. Those students who use public transportation appear to have lower CGPAs.

D. LITERATURE REVIEW

As colleges and universities become increasingly more interested in serving the needs of new, diverse student populations, interest in the continued success of students completing the high school equivalency diploma, the GED, has also improved. To date, research studies have focused more on the effectiveness of GED preparatory programs and the success of their graduates than the characteristics of successful GED recipients. Nonetheless, those studies have suggested the need for programs which integrate both course work and complementary counseling and the need to assist students in addressing problems related both to their economic situations (Hardy, 1989) and multiple individual problems (Wilson, 1952).

One of the key factors influencing the success of students beginning with a GED is self-motivation. Whitney (1986) has indicated that 40 percent of the adults who seek a GED are motivated for job-related reasons; 30 percent are motivated by their desire to pursue post-secondary education or training; 25 percent motivated by a drive for personal satisfaction; and 5 percent are motivated for many other reasons. Bean and Metzner (1985) cite numerous studies suggesting a direct relationship between the individual's initial educational goals and his/her persistence.

Beyond individual motivation, the support of family and friends, as well as college faculty and staff, has also proven critical to the success of GED recipients in college. Referencing the work of Spady (1970) and Tinto (1975), Bean and Metzner suggest that the support of significant others

may have a greater influence on the persistence of non-traditional students (e.g., GED recipients) than such support has on the persistence of traditional college students. Therefore, since the support and encouragement need is defined as greater, it seems crucial that adult educators address this need as well as providing instruction.

Schinoff (1983) indicates that advising, as well as early academic warnings and interventions, is important because GED students must "feel that the help they receive in assessment, advising, and counseling is worthwhile." Lenning, et al (1980) suggest that advising has a positive impact on student persistence. Crockett (1978) emphasizes the importance of frequency and the duration of advisor-student contact.

Like many other students, GED recipients ability to succeed while working part-time is to be considered. Those employed part-time, (i.e., less than 20 hours per week), show greater persistence than those who are not employed (Astin, 1975). However, most researchers agree that employment in excess of 20 hours has a detrimental effect on student persistence.

While the available research on the collegiate performance and persistence of GED students like other non-traditional students is sparse, [based upon available information] it does appear that motivation, both internal and external, as well as past performance and work experience are fundamental student characteristics effecting performance. Likewise, the availability of effective student support systems and personnel complementing quality programs appear to enhance student persistence and success. As Bean and Metzner (1985) have suggested, a good deal more research needs to be produced regularly on the success of non-traditional students. The present study contributes to that goal.

PART II: RECOMMENDATIONS AND DISCUSSION

A. RECOMMENDATIONS

Recommendations derived from analysis have implications for all educational leaders involved in GED Programming.

First, and most important, GED recipients must be made aware that colleges expect them to succeed. If data is available, college newspapers can publish articles, and admission counselors can share success stories. It is the responsibility of GED educators in preparation programs and testing centers as well as college personnel to accept the mandate to prove GED students can and do succeed.

Second, college admissions officers and counselors must develop appropriate approaches for recruiting GED recipients and other so called "non-traditional students." College recruitment must go beyond visiting high schools and hosting college visitation days. Not only must students be appropriately recruited and provided with the information regarding enrollment but also be given assistance in planning to complete a college degree. For the past twenty years educational leaders have discussed recruiting "non-traditional students," defining them as older and working adults. On rare occasions, they have been referred to as "GED recipients." While a number of special/college enrollment programs have been established for specific populations such as the low income, very little has been done to study mechanisms for the recruitment and retention of GED students.

Third, it is important that the American Council on Education, the regulatory agency for General Educational Development Testing Services, provide information regarding the credibility of the GED and the promise of equivalent opportunity in higher education.

Fourth, college and GED preparation program linkages must be established. College information must be provided to pre-GED applicants attending preparation programs. Ideas for introducing college attendance might include reviewing college brochures and catalogues; college instructors addressing GED classes; and colleges inviting GED preparation students to college campuses for special tours/orientations or to sit in on classes, etc. GED instructors can facilitate development of friendships or peer support systems among individuals who are interested in College.

Fifth, test centers must provide College information to GED applicants and recipients. College enrollment should be encouraged for all GED recipients with passing scores, not just those attaining the higher scores.

Sixth, GED preparation program and college counselors should help students plan for college. Items to be included in discussion should be strategies for earning funds through part-time work and financial aid. When the student must work full-time, the counselors should help the student look carefully at plans for courseload. It should be emphasized that most colleges are flexible with enrollment plans; allow attendance across divisions, part-time and full-time, and do not require consecutive semester enrollment for program completion.

Seventh, colleges must provide improved systems for faculty/

counselor linkages to students which insure contact from enrollment through graduation. It is essential that each student have the opportunity for one-on-one meetings.

Finally, valid information must be generated to define the GED recipient population attending college and succeeding. When educators are able to share data, skepticism about the GED decreases. Consequently, barriers to higher education for GED Recipients are removed.

B. DISCUSSION

The number of GED recipients continues to grow. According to the American Council on Education, statistics pertaining to the United States and its territories show that the number of persons earning a high school equivalency certificate has increased from 427,075 in 1985 to 471,498 in 1988.

Colleges, particularly community colleges, need to address GED recipients as a target group in institutional enrollment and retention plans. Colleges need to verify the numbers of students involved by reviewing enrolling and graduating class transcripts in order to determine the percentage of GED recipients who are part of this population.

The story behind the success of the sample group of 160 students who enrolled at North Shore Community College after earning a GED is an important one. It is important for the researcher and Director of the Center for Alternative Studies in managing a GED testing service which assists recipients in making the transition to College enrollment. It is important for the College as a whole to have data available for use in recruitment and retention planning. The story provides valid information to the Testing Center to use in encouraging those who have not yet earned an equivalency credential to do so and to attend College. It also provides information to the College so that it can maximize access and retention for all GED recipients.

Discussion of the four major factors which lead to GED recipients' success, demonstrates how information can be used to provide a basis for program improvement. (The six relevant factors will not be discussed herein.) For example, two factors of significance were that the primary access route of GED recipients was through referral of family/friends and College Staff and that success was not based on consecutive semester enrollment nor division of enrollment.

The first message for the GED Testing Center and North Shore Community College is to improve linkages with area GED

preparation programs to ensure opportunities for potential college students to share information. Discussions among individuals with similar educational goals can be encouraged at the pre-GED educational level. In other words, a network of friends can be developed.

In addition, students can become familiar with the requirements of North Shore Community College and create an appropriate educational plan. Potential students can be informed that it is possible to leave school and return after an absence of a semester or two and that it is possible to transfer from full-time day division status to part-time evening studies without jeopardizing performance.

The second message for the Testing Center and College is that in providing GED access the role of College Staff must be recognized. College Staff must have enough information about GED services to be able to successfully refer colleagues, neighbors, and friends. With the results of this study staff now have more information pertaining to the credibility of GED.

The message for the general College is that support systems need to be refined. The study made it clear that success was directly related to a student having consistent contact with the same program coordinator and advisor within his/her academic discipline. It is suggested that enrollment and retention planning maximize the use of human resources. Attention to individual progress must be ensured across each division. In this way, student problems can be readily addressed and referrals can be made to College services.

The study also identified that students had indicated that they had used college services and were satisfied with them. The Faculty surveyed indicated that GED recipients willingly admit that problems are occurring, ask for help, and are grateful for referrals. The implication is that all Faculty must be applauded for the conscientious attention to making referrals to services and College service staff must be applauded for deliverance of appropriate assistance.

Many ideas to facilitate college access and retention for GED recipients can be generated from our study and I will do this. It is also my intention to encourage further research to enhance such ideas both at North Shore Community College and in other colleges. I am not overlooking the fact that the study was limited to one group of GED recipients. Questions as to whether or not the factors are valid as stated for larger groups of students need to be answered.

Most important, in order for further research to occur, other data bases are needed to generate additional

information. For example, the progress of GED recipients needs to be compared with the progress of high school graduates. North Shore Community College does not yet have any data base pertaining to cumulative grade point averages by program of study.

Human and material resources must be allocated. Empirical methods of study must be established to look at each identified factor of success. Finally, related variables must be determined, i.e., attitudes of staff and college personnel toward the credential.

Clearly, educational leaders need to review and evaluate the seven step research model, test it, and conduct comparative research. They also need to expand the process both in a qualitative and quantitative way.

It is my hope that the instruments available in the Appendix will be used many times over and the highlights of data and analysis which follows the Appendix be used to generate new ideas. Finally, it is my pleasure to share the addendum of this research which details data collection and analysis.

APPENDIX A

INSTRUMENTS



The Commonwealth of Massachusetts
North Shore Community College
Beverly, Massachusetts 01915

Telephone:
922-6722

Dear Student:

You are a special person to the staff of the Center for Alternative Studies (CAS). First, you successfully passed your GED Tests and enrolled at NSCC. Second, you have been successful at NSCC. You have matriculated into a program of study, have attended at least two semesters, and have earned a good or exceptional cumulative average. You are one of 160 students who met these criteria.

Because you have achieved academically, you have insights which may help the GED Testing Staff to encourage others to begin NSCC with a GED.

Your completion of the enclosed survey will help us to identify: (1) the most significant factors contributing to success of students who enter NSCC via GED/CAS; and (2) ways to improve our GED/CAS services.

Your responses will be treated as confidential material by GED/CAS services. I realize that some items may seem personal, so I am especially appreciative of your tolerance in completing them. Please return the survey in the enclosed self-addressed envelope.

As soon as the 160 surveys are returned, Nancy L. Murphy, Yvonne Duerr and I will analyze the data and write the final report. Information will be generalized and responses will be treated as anonymous.

If you would like to receive a copy of the final report, please indicate so on the survey. If you have any questions, please do not hesitate to call me at 922-NSCC, Ext. 4428.

Again, congratulations on your success to date at NSCC. I look forward to hearing from you.

Sincerely,

Anita P. Turner, Chief Examiner and Director
Center for Alternative Studies

Enclosure

**SURVEY OF GED RECIPIENTS
NORTH SHORE COMMUNITY COLLEGE STUDENTS
CENTER FOR ALTERNATIVE STUDIES**

BACKGROUND (For research purposes only)

Name _____ Male _____ Female _____
 last first MI
 Address _____
 # street City State Zip
 Social Security _____ / _____ / _____ Date of Birth _____ / _____ / _____
 Telephone # Home _____ Work _____
 Program of Study _____ Anticipated Graduation Date _____
 Age _____
 Age when you completed your GED Tests _____
 Age the first semester you enrolled at NSCC _____
 Race: Caucasian _____ Black _____ Oriental _____ Hispanic _____ Other _____
 Work Status:
 Full-time _____ Part-time _____ Average hours per week _____
 Do you support yourself financially? _____
 Do you have financial responsibility for others? _____
 Has obtaining the GED helped you earn a promotion? _____
 Has obtaining the GED given you access to skill training? _____
 Do you take public transportation to College now? Yes _____ No _____

EDUCATION**A. Before Taking GED****1. Preparation**

What grade formal school did you complete? _____
 Did you enroll in GED Preparation Program prior to taking the GED Tests? _____
 If so, please identify the program and explain how long you attended:
 Name of program _____
 Number of weeks attended _____
 Average hours per week _____
 Subject(s) studied _____
 Did you complete any other training or courses prior to beginning to take you GED Tests? _____

2. How did you hear about and/or who referred you to the GED services at NSCC? _____

What made you take the step from thinking about earning a high school credential to calling GED Services, completing the application and taking the tests?

3. Did you decide to attend College before or after you completed your GED? Before _____ After _____

What is the major reason you decided to attend college?

- a. _____ To obtain an Associate Degree or Certificate in a Career or Transfer Program.
- b. _____ To take courses necessary for transferring to another college.
- c. _____ To obtain employment.
- d. _____ To be eligible for promotion at your company.
- e. _____ To improve your chances for a better job.
- f. _____ To learn some specific skills for self-improvement.
- g. _____ Other _____.

4. Please identify information about North Shore Community College that you looked at/heard about prior to attending.

- | | | | |
|----------|---------------------|----------|-------------------|
| a. _____ | Brochure | f. _____ | Catalogue |
| b. _____ | Newspaper Ad | g. _____ | Newspaper article |
| c. _____ | Radio | h. _____ | Cable TV |
| d. _____ | Letter from College | i. _____ | Other |
| e. _____ | Friend/Acquaintance | | |

B. After Completing GED - College

1. Who encouraged you to begin your studies at NSCC and/or who encouraged you to keep studying even when you considered the possibility of not achieving your educational goal?

- a. Family
Parent(s) _____ Child/Children _____ Other Relative(s) _____
- b. Friend(s) _____
- c. Individual(s) where you work _____
Individual(s) in community agency _____
Other _____

2. Attendance

- a. During your time at NSCC, describe how you attended classes most semesters (for example, "one/two courses at a time") _____
- _____
- b. Days: Full-time _____ Part-time _____
Evenings: Full-time _____ Part-time _____

c. Beverly only _____ Lynn only _____ Beverly and Lynn _____

3. Support Service Personnel at the College. Please identify any individual who has been especially helpful. If you do not remember the person's full name, please check their job title(s).
- a. Staff at the Center for Alternative Studies _____
 - b. Faculty Members _____
 Program of Study Coordinator/Director _____
 Academic Advisor _____
 - c. Admissions Counselor _____
 - d. Tutor at Academic Assistance Center _____
 - e. Counselor _____
 - f. Financial Aid Office _____
 - g. Receptionist _____
 - h. Administrator _____
 - i. Other _____

4. NSCC wants to make sure every student receives all the support needed. Please check and complete the items which apply.

- o Name of Service Used (Please check the applicable Satisfied/Dissatisfied column to describe your satisfaction with the service received).

	<u>Satisfied</u>	<u>Dissatisfied</u>
a. Center for Alternative Studies	_____	_____
b. Academic Advising	_____	_____
c. Admissions Orientation/ Assessment	_____	_____
d. Academic Assistance Center	_____	_____
e. Counseling	_____	_____
f. Financial Aid Office	_____	_____
g. Receptionist/Office Staff	_____	_____
h. Administrative Offices	_____	_____
i. Other (Student Activities Learning Resource Center)	_____	_____

- o How could any of the above services be improved (for example, location access, hours open?) Specify service and improvement.

- o If you did not use any of the above services, please state the reason.

o **Helping Others Starting College With a GED**

- A. Do you think that a special program/service should be created to assist individuals who begin NSCC by taking GED Tests? Yes _____ No _____.
- B. What would you suggest? (For example, a program whereby GED Service Staff link new recipients interested in attending college with individuals enrolled, a GED Alumni Association.)
- _____
- _____
- C. If a program or services were created, would you be interested in being involved? _____ If so, please describe how (for example, serving on a special committee, tutoring, peer counseling).
- _____
- _____
- _____

o **Follow-up Survey**

- A. Can we call you to discuss your comments and ideas at a later date? Yes _____ No _____
- B. Would you like a copy of the survey report? Yes ____ No ____

o **Comments**

Please return in the self-enclosed return postage paid envelope to:

Anita P. Turner, Director
 Center for Alternative Studies
 North Shore Community College
 23 Essex Street
 Beverly, MA 01915
 Telephone: (508) 922-6722, Ext. 4428

Thank you.

DIVISION CHAIR: _____

DEPARTMENT CHAIR: _____

FACULTY MEMBER: _____

The purpose of this survey is to derive a profile at the academic cluster in general and describe the relationship to the GED student in order to compare identified reasons for success, i.e., student perceptions with faculty and staff perceptions.

1. Academic Cluster of Survey:
2. Number and Name of Degree Programs within Division:
3. Program Coordinator Yes ___ No ___
4. Enrollment interview required
5. Member of department is academic advisor within years '85 and '87. Yes ___ No ___
6. Prerequisite to program admission if GED recipient:
 - a. academic coursework recommended prior to program admission.
 - b. specific work experience.
 - c. named skills.
 - d. general work experience.
 - e. other
7. Number of follow-up interviews required with program coordinator as student progresses through program.
(Example: one per semester)

8. How and when students are referred (answer both):

Pre-College

When Enrolled
in College

- a. Financial Aid
- b. Academic Assistance
Services
- c. Counseling
- d. Other

9. Faculty and staff actively recruit for GED? Where and how?

10. Referral of any interviewee to GED, College Admissions, Pre-GED?

11. Special experiences with "GEDers."

Pre-GED

Post-GED

During College Enrollment

12. Why do you think GED students were successful at NSCC?

APPENDIX B

HIGHLIGHTS OF DATA AND ANALYSIS

HIGHLIGHTS OF DATA AND ANALYSIS

Success

1. Analysis of all data showed that GED recipients were enrolled, matriculated, and earning above average cumulative grade point averages (CGPAs) in higher education.
2. Academic performance was not influenced by enrollment in the Day Division or the Division of Continuing Education and Community Services (evening and summer).
3. Academic performance was not influenced by attending consecutive semesters only or interrupted attendance.

Significant Factors

1. Self-motivation is a key factor in college success for students starting with a GED. The majority of successful students are aware of college opportunities as they have reviewed brochures/catalogues and made a decision to enroll prior to obtaining a GED.
2. The referral/support of family/friends AND College Staff is significant in maximizing GED completion, enrollment, and continued attendance in college.
3. Consistent contact with one program coordinator and/or advisor is a major factor in maximizing the opportunity for success.
4. Successful students use college services and are satisfied with services received.

Other Relevant Factors

1. Attendance in a formal GED preparation program AND formal grade level completion above grade 10 facilitates success in higher education.
2. Age of completing GED and age of GED student enrollment in college are not significant factors in determining success.
3. GED scores most likely cannot be used as CGPA predictors (i.e., those with higher GED scores will not necessarily earn higher CGPAs).
4. Most GED recipients are working and have family responsibilities. Working part-time (20 hours or less) seems to have no influence on academic achievement, whereas working full-time (35 hours or more) has a negative influence.
5. In a multi-campus setting, attendance of classes at two campuses seems to have little effect on cumulative grade point averages.
6. Most successful students will drive to the campus rather than use public transportation. Those students who use public transportation appear to have lower CGPAs.

Success

1. Analysis of all data showed that GED recipients were enrolled, matriculated and earning above average cumulative grade point averages (CGPAs) in higher education.

- a. Synopsis

The first phase of the analysis of the general sample population of 160 GED recipients who earned over a 1.00 cumulative grade point average revealed that: 56 percent or 89 students earned a cumulative average of 3.00 - 4.00, a B to A+; 37 percent or 60 students earned an average of 2.00 - 2.99 or C to B-; and 7 percent or 11 students, an average of 1.00 - 1.99 or D to C-.

The second phase of the analysis of the student survey respondents showed a similar profile of cumulative grade point averages. Of the 87 students responding to the survey sample, 56 percent or 49 students earned a cumulative average of 3.00 - 4.00, and 44 percent or 38 students, a 2.00 - 2.99. There were no respondents with a CGPA lower than 2.00.

- b. Academic Cluster Variation

Using the cumulative grade point averages as a measure of greater success, two specific groups emerged from the general sample of 160 students. I identified those programs in which students earned the highest cumulative grade point averages as Group I and those programs in which students earned lowest CGPA's as Group II.

Group I consisted of Human Services, Health, and Liberal Arts/Special Programs. Ninety-eight students were enrolled in these three areas. Sixty-four percent or 63 students earned a 3.00 - 4.00; 30 percent or 29 students earned a 2.00 - 2.99; and only six percent or six students, a 1.00 - 1.99.

Group II consisted of Office Technology, Business, and Industrial Technology. Of the 62 enrolled students in these three fields, 42 percent or 26 students earned a 3.00 - 4.00; 48 percent or 30 students, a 2.00 - 2.99; and ten percent or six students, a 1.00 - 1.99.

Chart I. A., General Trends by Academic Cluster/Cumulative Grade Point Averages indicates the number and percentage of students earning a 3.00 - 4.00, a 2.00 - 2.99, and a 1.00 - 1.99 within each cluster.

CHART I. A. GENERAL TRENDS BY ACADEMIC CLUSTER/CUMULATIVE
GRADE POINT AVERAGES (CGPA)

Programs	3.00-4.00	2.00-2.99	1.00-1.99	# ENROLLED
GROUP I				
Human Services	28/70%	11/28%	1/2%	40
Health	7/64%	4/36%	0/0%	11
Liberal Arts and Special Programs	28/59%	14/30%	5/11%	47
	63/64%	29/30%	6/6%	98
GROUP II				
Office Technology	7/41%	7/41%	3/18%	17
Business	14/44%	15/47%	3/18%	32
Industrial Technology	5/38%	8/62%	0/0%	13
	26/42%	30/48%	6/10%	62
TOTAL	89/56%	59/37%	12/7%	160

Using the same grouping pattern, I analyzed the 87 student surveys. Chart I.B., Survey Sample Trends by Academic Clusters/Cumulative Grade Point Averages shows that of the 53 students in Group I, 70 percent or 37 of the respondents earned a 3.00 - 4.00 and 30 percent or 16 of the respondents earned a 2.00 - 2.99. Of the 34 respondents enrolled in Group II, 35 percent or 12 students earned a 3.00 - 4.00 and 65 percent or 22 students, a 2.00 - 2.99.

CHART I.B. SURVEY SAMPLE TRENDS BY ACADEMIC CLUSTERS/CUMULATIVE GRADE POINT AVERAGES

Programs	3.00 - 4.0	2.00 - 2.99	# ENROLLED
GROUP I			
Human Services	22/88%	3/12%	25
Health	7/88%	1/12%	8
Liberal Arts/ Special Programs	8/40%	12/60%	20
	37/70%	16/30%	53
GROUP II			
Office Technology	2/29%	5/71%	7
Business	8/35%	15/65%	23
Industrial Technology	2/50%	2/50%	4
	12/35%	22/65%	34
TOTAL	49/56%	38/44%	87

c. Questions Raised

I wondered why the students enrolled in Group I had higher CGPAs than those enrolled in Group II. I realized that Group I, Human Services and Health Programs were highly structured, had few electives, usually required an acceptance interview with the program coordinator, and required mastery in pre-requisite courses in some areas. I also recognized that Human Services and Health faculty spent a lot of time with individuals alone and groups. However, Liberal Arts, the third program of Group I, appeared to offer little structure, and all faculty at NSCC provide a great deal of support.

Perhaps, Health, Human Services, and Liberal Arts/Special Programs could be considered philosophical and personal in nature, not requiring the technical skill mastery required in Office Technology, Business, and Industrial Technology Programs. I wondered if GED students were either more oriented toward the non-technical programs or if they needed math or technical skill preparation to achieve higher grades in Office Technology, Business, or Industrial Technology areas.

I hoped that all of the questions raised might be answered by the survey results.

2. Academic performance of the group was not influenced by enrollment in the Day Division or Division of Continuing Education and Community Services (evening and summer).

a. General Trend Analysis

Thirty-nine percent or 63 students attended Days only, and 61 percent or 97 students attended both Day and DCECS Semesters. The total cumulative grade point average of those attending Days only was 2.95 and those attending Days and DCECS, 3.12. Furthermore, over 50 percent of each group earned a 3.00 - 4.00. What is significant is that students starting with a GED were successful if enrolled Days only or transferred between Days and DCECS. No students in our study were DCECS only. (See Chart II., General Trend Information: Comparison of Cumulative Grade Point Averages Per Program of Study, which indicates the cumulative grade point averages of the 160 students in the General Sample.)

CHART II. GENERAL TREND INFORMATION: COMPARISON OF CUMULATIVE GRADE POINT AVERAGE PER DIVISION OF ENROLLMENT (N=160)

	3.00 to 4.00	2.00 to 2.99	1.00 to 1.99	Avg. CGPA	Enrolled
Days	32/51%	26/41%	5/8%	2.95	63
Day/Evening	57/59%	33/34%	7/7%	3.12	97
TOTAL	89/56%	59/37%	12/7%	3.06	160

b. Survey Sample

I reviewed survey sample cumulative grade point averages in relation to full-time and part-time status according to academic clusters. Of the 87 students, 63 percent or 55 students stated they attended primarily full-time and 38 percent or 32 students, part-time. While more full-time students were represented in the survey sample, this did not distort results. When I

looked at three of those clusters in which a majority of the students attended full-time days, I found they did not necessarily have higher cumulative grade point averages. I found that only slightly over one-half of the Human Service students were full-time and yet nearly all achieved a 3.00 - 4.00. In Liberal Arts and Special Programs as well as Business, 70 percent attended full-time. Over one-half earned the lower CGPA of 2.00 - 2.99.

c. Comparison of data with published research findings

The literature discusses part-time student attrition as greater than full-time. However, there is no available data to confirm that full-time or part-time attendance is a significant factor in predicting academic success.

3. Academic performance was not influenced by attending consecutive semesters only or interrupted attendance.

a. General Trend Analysis According to Cumulative Average

General trend analysis showed clearly that academic performance was not seriously influenced by attendance pattern. Slightly over one-half of the students (51 percent or 82 students) attended consecutive Fall and Spring semesters. Nearly one-half (47 percent or 75 students) followed a mixed attendance pattern: e.g., attending one semester, skipping the next, and coming back a third or skipping two in a row. Chart III., General Trends of Academic Performance by Attendance Pattern shows whether a student who attended consecutive semesters or skipped a semester or two had little bearing on performance in college.

CHART III. GENERAL SAMPLE TRENDS OF ACADEMIC PERFORMANCE BY ATTENDANCE PATTERN (N = 160)

	3.00 to 4.00	2.00 to 2.99	1.00 to 1.99	Avg CGPA	Enrolled
Continuous	45/55%	31/38%	6/7%	3.08	82/51%
Mixed	42/56%	27/36%	6/8%	3.04	75/47%
Sporadic	2/67%	1/33%	0/0%	3.04	3/2%
Total	89/56%	59/37%	12/7.5%	3.06	160

b. **General Trend Analysis by Academic Program Clusters and Program Grouping**

I cross-referenced the data by looking at the individual programs and then at the program groupings. No matter how I analyzed the data, the pattern of attendance had no bearing on student cumulative grade point averages. (See Addendum, Chart III. B., for specific research details.)

Significant Factors

1. **Self-motivation is a key factor in college success for students starting with a GED. The majority of successful students are aware of college opportunities, having reviewed brochures/catalogues and made a decision to enroll in college prior to obtaining a GED.**

a. **Synopsis**

Nearly all students in the survey indicated they had reviewed college information prior to enrollment and over one-third made the decision to enroll prior to obtaining a GED. The responses to a fifth question on the student survey indicated that students were enthusiastic about helping others. Comments stated how students felt about succeeding. Faculty responses verified that internal motivation was a critical factor.

b. **Student Survey Responses/Comments**

I addressed the reason why students took the step toward earning a GED and provided a choice of six options. Seventy-one students gave 76 responses. Thirty-seven percent or 28 of the survey respondents indicated the reason they obtained a GED was to "further their education/ enroll in college." Of the other five choices, selections were as follows: to finish high school - 12; encouraged by friends and family - 4; improve chances for work - 14; self-improvement - 16; and requirement for military service - 2. 16 individuals did not answer.

I asked if students had decided to attend college before or after they had completed their GED. Eighty-seven students responded. Forty-eight percent or 42 students stated they decided to enroll in college before taking the GED. Thirty-seven percent or 32 students decided after completing the GED tests. Fifteen percent or 13 students did not answer the question.

I asked students to select the major reason they decided to attend college from seven listed options. Two of the choices related to attending college: (1) a two year community college and (2) a transfer college. Four options related to improving their employment situation. The last option was for other reasons for their decision to attend college. Eighty-seven individuals gave a total of 152 responses. Of the 152 responses, 58 percent or 51 of the 87 students indicated they decided to attend college to obtain an Associate Degree; and ten percent or nine of the 87 students to take courses to transfer to another college. Other responses were to obtain employment - 14 students; to be eligible for promotion - five students; to improve chances for a better job - 36 students; to learn specific skills - 30 students; other reasons - seven students. (See Chart IV., Comparison Analysis: Reasons For Enrollment In College.)

CHART IV. COMPARISON ANALYSIS: REASONS FOR ENROLLMENT IN COLLEGE
(RESPONSES: N=152)

	a	b	c	d	e	f	g	Responses
GROUP I								
HUMAN SERVICES	11	1	3	2	8	7	1	33
HEALTH	6	0	3	0	4	6	0	19
LIBERAL ARTS AND SPECIAL PROGRAMS	13	5	2	3	8	6	5	42

CHART IV. COMPARISON ANALYSIS: REASONS FOR ENROLLMENT IN COLLEGE
(RESPONSES: N=152) (Continued)

	a	b	c	d	e	f	g	Responses
GROUP II								
OFFICE TECHNOLOGY	4	0	1	0	5	2	0	12
BUSINESS	13	3	3	0	9	8	1	37
INDUSTRIAL TECHNOLOGY	4	0	2	0	2	1	0	9
	51	9	14	5	36	30	7	152
CODE:	33%	6%	9%	3%	24%	20%	5%	
Education				56%				
a =	To obtain an Associate Degree or Certificate in a Career or Transfer Program.							
b =	To take courses necessary for transferring to another college.							
Employment								
c =	To obtain employment.							
d =	To be eligible for promotion at your company.							
e =	To improve your chances for a better job.							
f =	To learn some specific skills for self-improvement.							
g =	Other.							

Students were asked to identify the source of North Shore Community College (NSCC) information that they "looked at/heard about" prior to enrollment. Ninety-three percent or 81 students in the survey gave 152 responses, all indicating that they had reviewed college information prior to enrollment. Six students did not answer the question.

Fifty-one received information from friends/family. Thirty-six received the college catalogue. Twenty-nine individuals identified that they had looked at a brochure. Eighteen individuals received a letter from the college. Nine individuals received information through a newspaper ad. Eight individuals stated they had received information through a newspaper article. One received information via Cable TV.

Most of the successful students stated they would like to help other GED recipients enroll and stay in college and they would be willing to commit time to facilitate development of a program.

I asked if students thought a special program/service should be created to assist individuals who begin NSCC by taking GED Tests. Seventy-seven percent or 67 students stated "yes." Forty-nine percent or 43 students responded with suggestions. Forty-one percent or 47 students stated they were willing to be involved if a program or service was created.

Finally, in the comments section of the Student Survey, 49 percent or 43 students responded. The majority of the answers referred to the encouragement the students received from NSCC Staff that helped them to succeed at College, raised their self-esteem, improved their life, and made them a professional.

c. Faculty Survey Responses

Faculty stated that they felt inner motivation was the key factor in the success of GED students and made strong statements regarding this fact.

Sample Statements

"These students know they need an education to be successful."

"The student is interested in, and dedicated, to improving him or herself."

"The 'GEDer' demonstrates a higher motivation than the general population at NSCC."

d. The Research

Self-motivation as a key factor to success in college is supported by nearly all authorities in the field of education. Douglas R. Whitney supports this statement in his September, 1986 Memorandum to GED Administrators and State Directors of Adult Education, referring to the University of Wisconsin Study (Reported May 14, 1986; Chronicle of Higher Education).

Whitney states that 30 percent of the adults who seek a GED

...are motivated chiefly by their wish to pursue some post-secondary program of education or training." (He indicates 40 percent are motivated for job-related reasons, one-fourth for personal satisfaction, and many for multiple reasons.)

Bean and Metzner cite more than 21 studies that

indicate that a direct relationship exists between a student's initial educational goals and persistence. (Bean and Metzner, p. 495)

The only contradictory comment is that of Wilson. It would appear that Wilson views GED student motivation as weak because of their "multiple problems." (Russell C. Wilson, "Personalogical Profile of Community-College High School Equivalency Students," WIN, pp. 52-59.) I believe Wilson's comments on motivation should be considered within their proper context as his intent appears to be to encourage the development of college support networks for GED recipients.

2. The referral/support of family/friends AND College Staff is significant in maximizing GED completion, enrollment and continued attendance in college.

a. Synopsis

The responses on the student survey demonstrated that students perceive support from family AND College Staff as equally important. Two questions, which emphasized referral/encouragement in general, acknowledged the referral and support of family and friends as significant; and one question addressed College Faculty and Staff encouragement, evidencing such support to be equally significant. The research, while scant, does not agree, implying that college/staff support is not as important as the support of family and friends.

b. Student Responses

On the Student Survey, students were asked how they heard about and/or who referred them to the GED services at NSCC. Of the 59 of the 87 students who responded to this item, 47 percent or 28 students indicated that friends and family referred them to GED Services.

The rest indicated welfare agencies - four; newspaper - one; high schools - six; NSCC staff - three; self - three; Operation Bootstrap - five; former students - two; Lynn Opportunity Center - one; Salem Area Employment and Training Act/Northshore Employment Training - three; Educational Opportunity Center - one; Massachusetts Rehabilitation - one; and military - one.

Students were also asked who encouraged enrollment in studies at NSCC and/or who encouraged continuation of studies even when considering the possibility of not achieving the educational goal was apparent. There were 131 responses by 84 individuals. Three individuals did not answer the question. Thirty-nine

responses or 30 percent indicated family and 39 responses or 30 percent, friends. The rest indicated: individuals at work - 13; individuals in community agency - 12; self - 20; and NSCC staff - eight.

c. Faculty and Staff Support

In the case of the successful students, the support of faculty and staff had been significant. Seventy-four percent or 64 students of the 87 respondents to the student survey named 181 individuals who worked at the College who had encouraged them to begin studies at NSCC and/or encouraged them to keep studying even when the students considered their educational goal achievement might not be possible.

The individuals are listed on pages 35 and 36 according to academic cluster with a numerical note when an individual is named more than once.

Human Services
41 responses by 21 students

Joseph Boyd	Eileen Edelstein-3	Paulette Massari
William Byard	Sue Ferrante	Tom MacLachlan-3
Carrellen Brown-3	Espy Herrera-2	William O'Brien-4
Linda Budd	Katie Herzog-3	Ellen O'Donnell-3
Jackie DeLorenzo	Maryellen Hunt	Howard Sylvetsky-2
Joseph Dever	Susan Jhirad	Nancy Terry-2
Marilyn Dorfman	Maggie LaBella-3	
Glenn DuBois	Nancy Lewis-2	

Health
17 responses by 7 students

Sr. Marie Bransfield	Richard Jennett	Nancy Terry
Carrellen Brown	Judy Maxfield-2	Roberta Whalen
Deanna Cross-2	Robert Montgomery	Starr Williams
Jackie DeLorenzo-3	John Nelson	
Adrena Doyle	Jane Rowe	

Liberal Arts and Special Programs
68 responses by 13 students

Peg Adams-2	Robert Finkelstein	Peter Monaco
Lou Anoli	Peter Foss	Walter Mott-2
Doris Ashton	Bob Francis	Nancy Murphy
Paul Bates-3	Lynn Furler	John Nelson
Jim Billings	Tom Gerecke-3	Elaine O'Brien
Bert Blumenkrantz	Kathe German	William O'Brien-2
Harry Bowen	Helen Graham-2	Ron Prentis
Jessica Brooks-3	Susan Herman	Shirley Robinson
Carellen Brown-4	Espy Herrera-2	Jill Ritchie
Linda Budd-3	Elaine Israelson	Nancy Terry-3
Susan Bulba	Susan Jhirad-2	John Tobey
Edna Chansky	Anita Kaufman	Art Underwood
Jackie DeLorenzo	Jean Keith	Beverly Verrengia
Dean Derderian	Rosemary Levesque	Lois West
Marilyn Dorfman	Nancy Lewis-3	David Wharton
Eileen Edelstein	Robert Matthews	

Office Technology
11 responses by 4 students

Peg Adams	Katherine Foley	Jennifer Rich
Susan Battis	Marsha Gadzera	Jill Ritchie
Carrellen Brown	Susan Jhirad	Judith Terban
Brenda Clark	Nancy Murphy	

Business
40 responses by 17 students

Peg Adams	Jean Hodgins	Dan Popp
Susan Battis	Anita Kaplan	John Pitts
Sheldon Brown	Nancy Lewis	Ron Prentis
William Byard	Paul Lospennato	Peter Regan
Judith Carter	Norma MacDonald	Shirley Robinson
Norm Cote	DeeDee Majors	Jeff Slater
Jackie DeLorenzo	Robert Matthews	Sandy Stalker
Janet Dowray	Peter Monaco	John Sullivan - 2
Eileen Edelstein	Walter Mott	Joseph Tabet
Robert Finkelstein	Art Neuner - 3	John Tobey
Terry Gemmel - 2	Elaine O'Brien	Beverly Verrengia
Espy Herrera	Rick Ponticello	Lois West

Industrial Technology
4 responses by 2 students

Nancy Alberto	Roger Close	Lois West
Mackie Bastarache		

c. The Research

Bean and Metzner cite references which indicated that the support of parents, spouses, and friends probably had a greater influence on persistence for "non-traditional" students than for traditional students. They specifically refer to the models of Spady (1970) and Tinto (1975) which they state prove that outside encouragement is more significant than internal support. Although they indicate they do not wish to imply that no internal support exists for "non-traditional" students, they state that few empirical studies are available employing friends' support as a variable.

3. Consistent contact with one program coordinator and/or advisor is a major factor in maximizing opportunity for success.

a. Synopsis

First, I looked at the Faculty Survey responses to two questions: whether or not the programs within the department had a program coordinator and whether or not the academic advisor was a member of the department. Second, for quantitative verification, I analyzed the student/faculty ratio. Third, I reviewed the type of contact from enrollment to completion through questions on the Faculty Survey. All responses and the research supported findings.

b. Program Coordinators Per Academic Cluster

According to Faculty Survey responses, the grouping of academic clusters in which the students had higher CGPAs were, indeed, the areas which had program coordinators and/or all students had academic advisors within their program of studies.

Within Group I: Human Services, Health, and Liberal Arts/Special Programs group there were 25 programs with 12 program coordinators. All students had an academic advisor within their program of study. It is important to note that nearly 19 percent of 30 students of our general sample of 160 had enrolled in a program after completing the Motivation Program. The Motivation Program advisor works with each student from enrollment through graduation.

Within Group II: Office Technology, Business, and Industrial Technology group there were 24 programs. Two had program coordinators and 80-90 percent of the students had academic advisors within their program of

study. (See Chart V. A., Academic Cluster Profiles: Program Coordinator/Academic Advisor Profiles.)

CHART V. A. ACADEMIC CLUSTER PROFILES: PROGRAM COORDINATOR/
ACADEMIC ADVISOR PROFILE

Program Coordinators	No. of Programs	No. of Coordinators	Academic Advisor In Department
GROUP I			
Human Services	13	3	13
Health	6	6	6
Liberal Arts and Special Programs/ General Studies/ Motivation	6	3*	6
* Honors Program, English As a Second Language (ESL) Program, Motivation to Education Program			
GROUP II			
Office Technology	7	0	80 - 90%
Business	9	1	80 - 90%
Industrial Technology	8	1	90 - 100% after enrollment

c. Quantitative Analysis

When I looked at the ratio of students to faculty members within academic cluster groupings, I found that for those with higher CGPAs the average number was 19 students per faculty member. For those with lower CGPAs, the average number was 35 students per faculty member.

Within Group I: Human Services, Health, and Liberal Arts/Special Programs, 100 percent of the students had academic advisors within their program. I averaged full-time enrollment figures for the Fall of 85 and Spring of 86, using the average number of students in a given semester. The average was 2030 (The Fact Book, 1986-87, Office of Planning and Research, NSCC, p. 66). According to North Shore Community College's Dean of Academic Affairs records, there were 105 faculty

members employed full-time during the same time period. Thus, the average ratio of students to faculty was 19 students per faculty member. The breakdown is Human Services - 38:1; Health - 11:1; Liberal Arts and Special Programs - 19:1.

Within Group II: Office Technology, Business and Industrial Technology Programs, faculty stated that 80 - 90 percent of the students had academic advisors within departments. The total number of students enrolled in a semester was 1366 with 39 faculty members. The average number of students per faculty member was 35. The breakdown is Office Technology - 38:1, Business - 50:1, Industrial Technology - 19:1. (See Chart V. B., Academic Cluster Descriptors: Ratio of Total Number of Enrolled Students to Faculty Members.)

CHART V. B. ACADEMIC CLUSTER DESCRIPTORS: RATIO OF TOTAL NUMBER OF ENROLLED STUDENTS TO FACULTY MEMBERS

	Average No. of Students Enrolled in Fall 85/86 Semesters	Full-time/ Part-time Faculty In Programs	Ratio Students to Faculty
<u>GROUP I</u>			
HUMAN SERVICES	415	11	38:1
HEALTH	268	24	11:1
LIBERAL ARTS AND SPECIAL PROGRAMS/ GENERAL STUDIES/ MOTIVATION	1347	70	19:1
	2030	105	19:1
<u>GROUP II</u>			
OFFICE TECHNOLOGY	304	8	38:1
BUSINESS	753	15	50:1
INDUSTRIAL TECHNOLOGY	309	16	19:1
	1366	39	35:1
TOTAL	3396	144	24:1

- d. I explored the nature of faculty/student contact through questions asking whether or not an interview was required for enrollment and the type of follow-up interviews with either the program coordinator or advisor. Chart VI., Type of Contact with Program Coordinator/Academic Advisor Program Enrollment - Completion, shows that in Group I: Human Services, Health, and Liberal Arts and Special programs, an enrollment interview was required in most cases and contact of a formal nature continued throughout the student's program.

In Group II: Office Technology, Business, and Industrial Technology, no enrollment interviews were required. Due to the large number of students, contact seemed to be based on the availability of academic Advisors.

CHART VI. TYPE OF CONTACT WITH PROGRAM COORDINATOR/ACADEMIC ADVISOR PROGRAM ENROLLMENT - COMPLETION

PROGRAM	ENROLLMENT INTERVIEW	ADVISOR/COORDINATOR
<u>GROUP I</u>		
HUMAN SERVICES	Yes	Program Coordinator has 2-6 appointments with students per semester.
HEALTH	Yes for Allied Health	Program Coordinator - formal interview once a semester; informal contact daily.
	No for Nurse Education	Weekly review by faculty identified as facilitators for clinical course.
LIBERAL ARTS AND SPECIAL PROGRAMS	Yes for Honors.	Academic advisor "signs-off" on Liberal Arts students once a semester.
	Yes for Motivation to Education, requires 2 inter- views; ESL.	Regular follow-up for all students in Motivation and ESL to track students in accordance with grant procedures.

CHART VI. TYPE OF CONTACT WITH PROGRAM COORDINATOR/ACADEMIC
ADVISOR PROGRAM ENROLLMENT - COMPLETION (Continued)

PROGRAM	ENROLLMENT INTERVIEW	ADVISOR/COORDINATOR
GROUP II		
OFFICE TECHNOLOGY	No	Academic Advisor follows-up three (3) times per semester when possible.
BUSINESS	No	Academic Advisor participa- tion, regular advisement at beginning of semester. Specialty areas have in- dividual named to help students on request.
INDUSTRIAL TECHNOLOGY	No	Department Chairs and faculty look after students in programs as closely as possible.

e. The Research

Bean and Metzner cite Lenning, et al (1980) as suggest-
ing that advising is related to persistence; and
Crockett (1978) as focusing on length and frequency of
contact, topics covered, accessibility, and advisor's
knowledge of the institution as related to persistence.

Several empirical studies are cited as rendering
inconsistent results, particularly regarding student
evaluation of advising services. The research findings
relevant to students' stated reasons for dropping out
of community college institutions are in agreement with
my findings in that students felt that "improved
advising services would have assisted them in remaining
in college." (Bean and Metzner, p. 501. Study samples:
Davis, 1971; Gorter, 1978; Smith, 1980; Taylor, 1982;
Tweddale, 1978; White, 1972.)

4. Successful students use College services and are satisfied
with services received.

a. Synopsis

Two items on the survey related to services. Major
support services were listed and students were asked to

identify services used and to indicate satisfaction/dissatisfaction. Eighty-five individuals indicated high use of services. While the research is scant, it appears that the need for colleges to provide quality service for "non-traditional" students is documented.

Students were also asked to identify college staff who were supportive either by name or job title. Sixty-four students responded naming 181 individuals.

b. Student Use of Specific Service With Satisfactory Rating

From 55 to 69 percent of the responding 85 students used five of the major services of the College and rated them satisfactorily. The five were:

Academic Advising - 69 percent or 59 students.

Academic Assistance Center - 56 percent or 48 students.

Admissions, Orientation and Assessment - 59 percent or 50 students.

Center for Alternative Studies - 56 percent or 48 students.

Counseling Center - 55 percent or 47 students.

Of three other major services, the percent of use ranged from 32 percent to 48 percent.

Financial Aid - 46 percent or 39 students.

Learning Resource Center - 48 percent or 41 students.

Student Activities - 32 percent or 27 students.

c. Names of College Staff Supporting Students by Category

Faculty members, program coordinators, financial aid officers, counselors, tutors, Center for Alternative Studies and Admissions personnel who supported students were identified. The 181 responses included: Faculty Members/Coordinators/Advisors, the Financial Aid Officer, Counselors, Tutors at Academic Assistance Center, Staff at Center for Alternative Studies, Admissions Counselors, Receptionists, and Administrators

d. Analysis of Use By Academic Program Clusters

Comparing the use of service with satisfactory ratings by academic grouping, "Used with Satisfactory Rating"

was significantly higher in five areas (Academic Advising; Admissions, Orientation and Assessment; Counseling; Learning Resource Center; and Student Activities) for the students in the Human Services, Health, and Liberal Arts/General Studies/Special Programs cluster. The services which were used and rated satisfactory more frequently by the Office Technology, Business and Industrial Technology cluster were Academic Assistance and Financial Aid. The percentage rate for use and level of satisfaction for the Center for Alternative Studies was similar for both groups. (See Chart VII., Student Indication of Use and Satisfaction With College Services.)

CHART VII. STUDENT INDICATION OF USE AND SATISFACTION WITH COLLEGE SERVICES (N = 85)

	ACAD ADV	ACAD ASST	ADMIN	ADMSS	CAS	COUNS	FA	LRC	SA
GROUP I(N=52)									
HUMAN SERVICES, HEALTH, LIBERAL ARTS AND SPECIAL PROGRAMS	39	27	25	33	29	33	21	27	20
	75%	52%	48%	63%	56%	63%	40%	52%	38%
GROUP II(N=33)									
OFFICE TECHNOLOGY BUSINESS INDUSTRIAL TECHNOLOGY	20	21	16	17	19	14	18	14	7
	60%	64%	48%	52%	58%	42%	55%	42%	21%
TOTAL (N=85)	59	48	41	50	48	47	39	41	27
	69%	56%	48%	59%	56%	55%	46%	48%	32%

Code:

ACAD ADV = Academic Advisor
 ACAD ASST = Academic Assistance
 ADMIN = Administration
 ADMSS = Admissions
 CAS = Center for Alternative Studies
 COUNS = Counseling
 FA = Financial Aid
 LRC = Learning Resource Center (Library and Instructional Media Services)
 SA = Student Activities

When I asked how any of the services could be improved, 67 percent or 58 students responded and 33 percent or 29 students did not answer the question. The majority of the students responded that all service offices should be open more and be better staffed, and that there should be improved advertising of the services to let students know where and when they can get help.

The students were asked to state reasons for not using the services. Thirty-eight percent or 33 students responded they did not need the services and 62 percent or 54 students did not answer the question.

d. The Research

Richard B. Schinoff has written a chapter for New Directions in Community Colleges, No. 3 entitled "Advisement and Counseling Challenges Facing Community College Educators: The Miami-Dade Experience for Counseling, A Crucial Function for the 1980's." (Editors: Thurston, A.S., and W. A. Robbins, San Francisco, Jossey-Bass, September, 1983.)

Schinoff discusses services that make a difference, emphasizing that GED students must "feel that the help they receive in assessment, advisement, and counseling is worthwhile" (p. 69). He further emphasizes that early academic warnings with mid-term progress reviews can provide a counselor with the opportunity to prescribe actions.

Other Relevant Factors To Be Taken Into Consideration When Setting Up Programs To Facilitate Success In College For All GED Recipients

1. Attendance in a formal GED preparation program AND formal grade level completion above grade 10 facilitates success in higher education.

a. Synopsis of Research Activity

First, I compiled student responses to two survey questions: (a) whether or not students had enrolled in a GED preparation program and (b) the grade-level of formal school completed. Second, I analyzed each variable in relation to cumulative average. Third, I looked at the two variables together. Finally, I compared the findings with the American Council on Education's GED statistics in relation to highest grade-level completed.

b. GED Preparation

When I asked if students had enrolled in a GED preparation program prior to taking the GED tests and to identify the program, 87 students responded. Forty-eight percent or 42 students completed a formal preparation program; 52 percent or 45 students did not. 70 percent or 29 students identified the programs and 30 percent or 13 students did not. Of the 42 students completing a preparation program, 62 percent or 26 students earned a 3.00 - 4.00 and 38 percent or 16 students earned a 2.00 - 2.99.

GED preparation programs were identified as follows: Operation Bootstrap, Inc. Learning Center; North Shore Community College Adult Learning Center; Adult Basic Education Preparation Center, Peabody (all supported by Adult Education funding); Community Education Training GED classes (funded by ACTION); Self-Help, Inc., Brockton; United States Armed Forces GED Program; Educational Opportunity Center; Beverly High School Night School Adult Program.

I analyzed the data by looking at participation in preparation programs in relation to cumulative grade point averages. Of the total group of 49 students who earned a 3.00 - 4.00 in any program, 53 percent or 26 students had completed a preparation program. In Group I, 51 percent or 19 students who earned a 3.00 - 4.00 completed a preparation program; in Group II, 58 percent or seven students had completed a preparation program. (See Chart IX. A., Comparison Analysis: Preparation Program Completed in Relation to Cumulative Grade Point Average.)

CHART IX. A. PREPARATION PROGRAM COMPLETED IN RELATION TO CUMULATIVE GRADE POINT AVERAGE (N = 87)

	3.00 - 4.00		2.00 - 2.99		TOTAL
	YES	NO	YES	NO	ENROLLMENT
GROUP I					
HUMAN SERVICES	15	8	1	1	25
HEALTH	1	4	1	2	8
LIBERAL ARTS AND SPEC. PRGMS.	3	6	2	9	20

CHART IX. A.	19	18	4	12	53
	PREPARATION PROGRAM COMPLETED IN RELATION TO				
	CUMULATIVE GRADE POINT AVERAGE (N = 87)				
	3.00 - 4.00		2.00 - 2.99		TOTAL
	YES	NO	YES	NO	ENROLLMENT
GROUP II					
OFFICE					
TECHNOLOGY	1	1	5	0	7
BUSINESS	5	3	7	8	23
INDUSTRIAL					
TECHNOLOGY	1	1	0	2	4
	7	5	12	10	34
TOTALS	26/30%	23/26%	16/19%	22/25%	87

c. Grade Level

Eighty-seven students responded to "the highest grade level completed" question. Seventy-two percent or 63 students had completed grade 10 or above. Twenty-eight percent or 24 students had completed grades 6 - 9. I found that 34 percent or 30 students completed the 11th grade; 38 percent or 33 students completed the 10th; 21 percent or 18 students, the 9th; 5 percent or four students, the 8th; and two percent or two students, the 6th grade.

In order to determine whether grade level made a difference, I looked at students with a 3.00 - 4.00 and a 2.00 - 2.99 separately across all programs to review what grade level they had completed. In Group I: Human Services, Health, and Liberal Arts and Special Programs, 37 students had earned a 3.00 - 4.00 and 16 a 2.00 - 2.99. In Group II: Office Technology, Business and Industrial Technology, 12 students had earned a 3.00 - 4.00; and 22, a 2.00 - 2.99. (See Chart IX. B., Highest Grade Level Completed in Relation to Cumulative Grade Point Average.)

Of the Group I students with 3.00 - 4.00, a total of 65 percent or 24 students completed above grade 10. Thirty-five percent or 13 students had completed grade 11 and 30 percent or 11 students had completed grade 10.

Of the Group II students, a total of 75 percent or nine students had completed above grade 10. Thirty-three percent or four students had completed grade 11 and 42 percent or five students had completed grade 10.

CHART IX. B. HIGHEST GRADE LEVEL COMPLETED IN RELATION TO CUMULATIVE GRADE POINT AVERAGE (GRADE LEVEL ONLY) (N = 87)

PROGRAM	3.00 - 4.00 GRADE					2.00 - 2.99 GRADE					Enrolled
	11	10	9	8	6	11	10	9	8		
GROUP I											
HUMAN SERVICES	5	9	7	2	0	0	0	2	0	0	25
HEALTH	2	0	3	0	0	1	2	0	0	0	8
LIBERAL ARTS AND SPECIAL PROGRAMS	6	2	1	0	0	7	2	1	0	1	20
	13	11	11	2	0	8	4	3	0	1	53
GROUP II											
OFFICE TECHNOLOGY	0	2	0	0	0	0	5	0	0	0	7
BUSINESS INDUSTRIAL TECHNOLOGY	3	2	2	0	1	4	7	2	2	0	23
	1	1	0	0	0	1	1	0	0	0	4
	4	5	2	0	1	5	13	2	2	0	34
Total	17	16	13	2	1	13	17	5	2	1	87

d. Preparation Program Participation and Grade Level

Most importantly, I found that while preparation program participation and highest grade level completion above grade 10 seemed to be the ideal background as a predictor of success, completion of a GED preparation program enhanced the opportunity to earn a higher CGPA for all students.

I reviewed the grade level of those 42 students who completed a preparation program. Of the 26 students

who earned a 3.00 - 4.00, 67 percent or 18 students had completed grade 10 or above and 33 percent or nine students had not. Ten students had completed grade 11; 8, grade 10; six had completed grade 9; two, grade 8; and one student, grade 6. (See Chart IX. C., Comparison Preparation Program Participants, Grade Level Left School and Cumulative Grade Point Averages.)

CHART IX. C. COMPARISON PREPARATION PROGRAM PARTICIPANTS, GRADE LEVEL LEFT SCHOOL AND CUMULATIVE GRADE POINT AVERAGES (N = 42)

	3.00 - 4.00					2.00 - 2.99					
	11	10	9	8	6	11	10	9	8	6	Total
GROUP I											
HUMAN SERVICES	5	4	4	2	0	0	0	1	0	0	16
HEALTH	0	0	1	0	0	1	0	0	0	0	2
LIBERAL ARTS AND SPECIAL PROGRAMS	3	0	0	0	0	0	2	0	0	0	5
	8	4	5	2	0	1	2	1	0	0	23
GROUP II											
OFFICE TECHNOLOGY	0	2	0	0	0	0	5	0	0	0	7
BUSINESS	2	1	1	0	1	1	4	1	0	0	11
INDUSTRIAL TECHNOLOGY	0	1	0	0	0	0	0	0	0	0	1
	2	4	1	0	1	1	9	1	0	0	19
TOTALS	10	8	6	2	1	2	11	2	0	0	42

e. Comparison of Survey Data With National GEDTS Statistics

A greater percentage of NSCC GED students surveyed completed grade 10 and 11 than individuals completing tests throughout Canada and the United States.

Of the total sample, 38 percent completed Grade 10 and 36 percent, Grade 11. According to the 1987 GEDTS National Statistical Report, 30.7 percent of all students who successfully completed the battery had completed Grade 10 and 29.9 percent had completed Grade 11. Note: there were no students at Grade 12 completion level in the study, whereas the GEDTS lists six percent. (The 1987 GED Statistical Report, The General Educational Development Service of the American Council on Education, One Dupont Circle, Washington, D.C., 20036, p. 14.)

2. Age of completing GED and age of GED student enrollment in college are not significant factors in determining success.

a. Synopsis

Evidence was an analysis of survey sample age data. Eighty-one students responded to two age questions: the age they completed a GED and the age they enrolled in college. This review showed that the successful GED student was most likely older than 20 when enrolling in college. Further, the time lapse between GED completion and college enrollment was irrelevant. No references to age factors were found in published research.

a. Completion of GED and College Enrollment

The average age for GED completion was 25 for 81 students reporting their age at completing their GED. The GED age mode of this total group was 16-20; the median, 21-25. The average age of enrollment in College was 29.1. There were three modes for college enrollment age: 16-20, 21-25, and 26-30 and a median of 26-30. (See line one of Chart X. A. 1., Age of Completion of GED and Age of Enrollment at NSCC.)

CHART X. A. 1. COMPARISON ANALYSIS: AGE OF COMPLETION OF GED AND AGE OF ENROLLMENT AT NSCC (N = 81)

(Age ranges according to the national GED statistical groupings of the American Council on Education)

Age	16-:	21-:	26-:	31-:	36-:	41-:	51-:		MODES/
Ranges	20 :	25 :	30 :	35 :	40 :	50 :	60+ :		MEDIANS
	:	:	:	:	:	:	:	:	
GED	29 :	9 :	12 :	5 :	7 :	7 :	2 :		MODE 16-20
	:	:	:	:	:	:	:	:	MEDIAN 21-25
	:	:	:	:	:	:	:	:	
COLLEGE	15 :	15 :	15 :	13 :	9 :	10 :	4 :		3 MODES: 16-20
	:	:	:	:	:	:	:	:	21-25
	:	:	:	:	:	:	:	:	26-30
	:	:	:	:	:	:	:	:	MEDIAN: 26-30
	:	:	:	:	:	:	:	:	

Chart X. A. 2., Comparison Analysis: Age of Completion of GED and Age of Enrollment at NSCC by Academic Cluster Groups indicates that while the completion of the GED mode is the same for both groups, the mode for college enrollment shows that the students in Group I were slightly older.

CHART X. A. 2. COMPARISON ANALYSIS: AGE OF COMPLETION OF GED AND AGE OF ENROLLMENT AT NSCC BY ACADEMIC CLUSTER GROUPS

AGE RANGES	:	16-:	21-:	26-:	31-:	36-:	41-:	51-:	MODES/ MEDIAN
	:	20 :	25 :	30 :	35 :	40 :	50 :	60+:	
	:	:	:	:	:	:	:	:	
HUMAN	:	:	:	:	:	:	:	:	
SERV.,	:	17 :	11 :	5 :	5 :	3 :	6 :	1 :	MODE 16-20
HEALTH &	:	:	:	:	:	:	:	:	MEDIAN 26-30
LIBERAL	:	:	:	:	:	:	:	:	
ARTS/SPEC	:	:	:	:	:	:	:	:	MODE 26-30
PRGMS.	:	9 :	7 :	10 :	6 :	5 :	9 :	2 :	MEDIAN 26-30
	:	:	:	:	:	:	:	:	
OFFICE	:	12 :	8 :	7 :	0 :	4 :	1 :	1 :	MODE 16-20
TECH,	:	:	:	:	:	:	:	:	MEDIAN 21-25
BUSINESS &	:	:	:	:	:	:	:	:	
IND.TECH	:	:	:	:	:	:	:	:	MODE 21-25
	:	6 :	8 :	5 :	7 :	4 :	1 :	2 :	MEDIAN 26-30
	:	:	:	:	:	:	:	:	

b. Time Lapse Between GED Completion and College Enrollment

While many students completed the GED and enrolled in College in the same year, the range of the "wait" was from one to over ten years.

The profile for the each group was similar. In Group I, 33 percent or 16 students of the 48 students enrolled in the same year they completed the GED, 17 percent or eight students waited one year, and 19 percent or 24 students waited two - ten years. In Group II, 33 percent or 11 students of the 33 enrolled in the same year, 18 percent or six students waited one year, and 15 percent or 16 students waited two - ten years. (See Chart X. B. 1., Comparison of the Difference in the Number of Years Between Completion of GED and College Enrollment by Academic Clusters.)

CHART X B. 1. COMPARISON OF THE DIFFERENCE IN THE NUMBER OF YEARS BETWEEN COMPLETION OF GED AND COLLEGE ENROLLMENT BY ACADEMIC CLUSTERS

	Same Year	-1*	+1	+2	+4	+5	+6	+7	+8	+9	+10
GROUP I											
HUMAN SERVICES, HEALTH & LIBERAL ARTS, SPEC PROGRAMS	16	1	8	2	1	4	2	2	2	1	9
GROUP II											
OFFICE TECHNOLOGY, BUSINESS, INDUSTRIAL TECH.	11	1	6	3	2	2	1	1	1	0	5
	27	2	14	5	3	6	3	3	3	1	14

*Enrolled in College prior to earning GED.

c. The Research

There were no references to age in the literature other than general statements that "non-traditional" students are older.

3. GED scores most likely cannot be used as cumulative grade point average predictors (i.e., those with higher GED scores will not necessarily earn higher cumulative grade point averages).

a. Synopsis

Evidence was a comparison of the GED scores with cumulative grade point averages for the 27 students in the survey sample who earned their GED at the NSCC Testing Center. The findings of this study cannot be considered conclusive as the sample of students with GED scores in our survey was small and a standard analytical tool was not used. The research indicates there is a need to look at GED scores more critically as some studies have shown correlations.

b. GED Total Scores Compared To Cumulative Grade Point Averages

The total range of GED scores for the group of 27 students who earned their GED at NSCC was 225 to 328. (In Massachusetts, the minimum total score for successfully passing all five tests is 225, an average of standard score of 45 per test. The maximum total score is 393 or an average of a 78 standard score per test.) The range of those earning a 3.00 - 4.00 was 226 to 328. The range of those earning a 2.00 - 2.99 scores were 225 to 325.

c. GED Scores Compared by Academic Program Cluster Cumulative Grade Point Averages

Of 17 students enrolled in Group I, the average five test total GED score for the students at 3.00 - 4.00 was 270 and for 2.00 - 2.99, 274. Of the ten students enrolled in Group II, of those earning a 3.00 - 4.00, the average GED score was 271, and for 2.00 - 2.99, 280. (See Chart XI., Comparison Analysis of GED Scores in Relation to Cumulative Grade Point Averages.)

CHART XI. COMPARISON ANALYSIS OF GED SCORES IN RELATION TO CUMULATIVE GRADE POINT AVERAGES (N = 27)

	CGPA 3.00 - 4.00	CGPA 2.00 - 2.99	Enrolled
GROUP I			
HUMAN SERVICES	226 - 272	225	
HEALTH	245 - 309	245	
LIBERAL ARTS AND SPECIAL PROGRAMS	235 - 328	270 - 325	17
GROUP II			
OFFICE TECHNOLOGY	267	252	
BUSINESS	243 - 306	269 - 288	
INDUSTRIAL TECHNOLOGY	265 - 273	309	10
TOTAL STUDENTS	16	11	27

d. The Research

Whitney, in commenting on the University of Wisconsin Study, indicates that some studies have shown correlations. (Whitney, Comments and Suggestions Concerning Studies, "Equivalency Certificates - Report to the Superintendent: Findings and Recommendations," and "Performance of GED Holders Enrolled at the University of Wisconsin's Thirteen Campuses, 1979-1985," Douglas R. Whitney, May 10, 1986, pp. 9, 10.)

4. Most GED recipients are working and have family responsibilities. Working part-time (20 hours or less) seems to have no influence on academic achievement, whereas working full-time (35 hours or more) may have a negative influence.

a. Synopsis

Eighty-three students or 95 percent of the students in the survey sample indicated that they did work while attending college. Thirty or 54 percent of the students worked part-time (20 hours or less); 27 or 33 percent worked full-time (35 hours or more). Twenty-five or 28 percent did not indicate full or part-time work status. Four or five percent of the respondents did not answer the question.

b. Analysis

Analysis of the information by Academic Cluster grouping showed that of the students in Group I, 42 percent worked part-time, and 29 percent worked full-time. Of the students in Group II, 26 percent worked part-time and 42 percent worked full time. I concluded that working part-time has little effect on a cumulative grade point average, but that working full-time has a negative influence. (See Chart XII. A., Comparison Analysis: Profile of Work as Full or Part-time by Academic Cluster Grouping on page 53.)

CHART XII. A. COMPARISON ANALYSIS: PROFILE OF WORK AS FULL OR PART-TIME BY ACADEMIC CLUSTER GROUPING

	Total Responses	Full	Work Part
GROUP I (N=52)			
Human Services	24	7	9
Health	8	1	4
Liberal Arts and Special Programs	20	6	9
	52	14 27%	22 42%
GROUP II (N=31)			
Office Technology	6	2	1
Business	21	8	6
Industrial Technology	4	3	1
	31	13 42%	8 26%
Total	83	27 33%	30 36%

c. Family Responsibilities

To verify the statements regarding work and to analyze the effects from another perspective, I asked if the student supported him/herself. Fifty-two percent or 45 students responded "yes;" 44 percent or 38 students responded "no;" 4 percent or four students did not answer the question. The number of students who reported that they worked was not dissimilar (48 to 55).

I also asked if they had financial responsibility for others. Fifty-six percent or 49 students responded "yes;" 39 percent or 34 students responded "no;" and five percent or four students did not answer the question. (See Chart XII. B., Comparison Analysis: Financial Responsibilities for Self and Others on page 54.)

CHART XII. B. COMPARISON ANALYSIS: FINANCIAL RESPONSIBILITIES
FOR SELF AND OTHERS (N = 87)

	Support Yes	Self No	No Ans.	Responsible Yes	for Others No	No Ans.
GROUP I						
Human Services	15	10	0	18	6	1
Health	3	5	0	4	4	0
Liberal Arts and Special Programs	12	7	1	10	9	1
	30	22	1	32	19	2
GROUP II						
Office Technology	3	3	1	3	3	1
Business	9	12	2	13	9	1
Industrial Technology	3	1	0	1	3	0
	15	16	3	17	15	2
TOTAL	45 52%	38 44%	4 4%	49 56%	34 39%	4 5%

d. The Research

According to Bean and Metzner, the research concurs with my findings. Kuh and Ardaiole (1979) found older students worked more hours per week than traditional students and Harwich and Kazlo (1973) found that commuter students were more likely to be employed.

More importantly, Bean and Metzner indicate:

Astin (1975) reported that students who were employed fewer than 20 hours per week exhibited greater persistence in college than unemployed students. Most researchers agreed that employment in excess of 20-25 hours per week was negatively related to persistence (p. 503).

5. In a multi-campus setting, attendance of classes at two campuses seems to have little effect on cumulative grade point averages.

a. Synopsis

Evidence was an analysis of the Survey Sample. Students were asked to identify which campus they attended. Eighty-five students responded. Two students did not answer the question. Sixty-one percent or 52 students attended one campus only: 35 responded Beverly; 17 responded Lynn. Thirty-nine percent or 33 students responded both campuses.

b. Campus Attendance and Cumulative Grade Point Averages

Forty-seven respondents had earned a 3.00 - 4.00. Fifty-three percent or 25 students attended one campus only and 47 percent or 22 students attended both. For students with the higher CGPAs of 3.00 - 4.00, it made no difference whether they attended one or both campuses. With those with CGPAs of 2.00 - 2.99, 71 percent or 27 students attended one campus only and 29 percent or 11 students attended both. (See Chart XIII. B., Campus Attendance.)

CHART XIII. A. CAMPUS ATTENDANCE: 3.00 - 4.00 CGPAs

	Beverly Only	Lynn Only	Both
GROUP I			
HUMAN SERVICES	6	7	9
HEALTH	4	0	1
LIBERAL ARTS AND SPECIAL PROGRAMS	5	0	3
	15	7	13

CHART XIII. A. CAMPUS ATTENDANCE: 3.00 - 4.00 CGPAs (Continued)

	Beverly Only	Lynn Only	Both
<u>GROUP II</u>			
OFFICE TECHNOLOGY	0	0	2
BUSINESS	2	1	5
INDUSTRIAL TECHNOLOGY	0	0	2
	2	1	9
Total	17/36%	8/17%	22/47%
	25/53%		

CHART XIII. B. CAMPUS ATTENDANCE: 2.00 - 2.99 CGPAs

	Beverly Only	Lynn Only	Both
<u>GROUP I</u>			
HUMAN SERVICES	1	0	2
HEALTH	2	0	0
LIBERAL ARTS AND SPECIAL PROGRAMS	5	3	3
	8	3	5
<u>GROUP II</u>			
OFFICE TECHNOLOGY	0	2	3
BUSINESS	1	4	2
INDUSTRIAL TECHNOLOGY	1	0	1
	10	6	6
	18/47%	9/24%	11/29%
	27/71%		

c. The Research

I found no references pertaining to student achievement at multi-campus colleges.

6. Most successful students will drive to the campus rather than use public transportation. Those students who use public transportation appear to have lower cumulative grade point averages.

a. Synopsis

I asked the students if they used public transportation to attend college. I reviewed the cumulative grade point averages of those students who used public transportation. While I felt the sample would be too small a number to analyze for conclusive evidence as to the effect on cumulative grade point average by the use of public transportation as opposed to driving, I also felt that an analysis was necessary to suggest a hypothesis for further study.

b. Cumulative Grade Point Average Review of Students Using Public Transportation

As to the use of public transportation, 18 percent or 16 students responded "yes," and 82 percent or 71 students responded "no." Fifty percent or eight of 16 students were enrolled in Group I: Human Services, Health, and Liberal Arts and Special Programs, 50 percent or eight students in Group II: Office Technology, Business, and Industrial Technology used public transportation.

Looking at the CGPAs of the eight students in Group I, I found three had earned a 3.00 - 4.00 and five, a 2.00 - 2.9. In Group II, all eight respondents earned a 2.00 - 2.99. (See Chart XIV., Use of Public Transportation In Relation to Cumulative Grade Point Averages.)

CHART XIV. USE OF PUBLIC TRANSPORTATION IN RELATION TO CUMULATIVE GRADE POINT AVERAGES

PUBLIC TRANS		SPECIFIC BY CGPA	
		3.00-4.00/2.00-2.99	
<u>GROUP I</u>			
HUMAN SERVICES	4	2	2
HEALTH	0	0	0
LIBERAL ARTS AND SPECIAL PROGRAMS	4	1	3
	8	3/38%	5/62%
<u>GROUP II</u>			
OFFICE TECHNOLOGY	2	0	2
BUSINESS	6	0	6
INDUSTRIAL TECHNOLOGY	0	0	0
	8	0	8/100%

c. The Research

I did not locate any research on the effect or use of public transportation on cumulative grade point averages.

SUMMARY

This presentation concludes the highlights of data analysis. It is my hope that all of the findings of this study will be carefully reviewed, and factors of success derived will be used as variables to be studied further.

The details of analysis with additional data are presented in the Addendum. This addendum which includes the evolution of the research is available on request. Because it is designed primarily for the individual who intends to use this model, to test it and/or compare results with personal research, it is a separate entity.

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ADDENDUM: DETAILED
DESCRIPTION PROCESS OF RESEARCH
COMPLETED ON GED RECIPIENTS SUCCEEDING AT
NORTH SHORE COMMUNITY COLLEGE

A MANDATE FOR THE 90'S: RESEARCH ON SUCCESS OF
GENERAL EDUCATIONAL DEVELOPMENT (GED) RECIPIENTS
IN HIGHER EDUCATION

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ADDENDUM**A MANDATE FOR THE 90'S: RESEARCH ON SUCCESS OF GENERAL
EDUCATIONAL DEVELOPMENT (GED) RECIPIENTS
IN HIGHER EDUCATION****RESEARCH AND SPECIFIC RESULTS**

The report which follows chronicles the development and implementation of the seven-step research process designed to facilitate an initial investigation of GED student success in the collegiate setting.

A. PRESENTATION OF THE SEVEN-STEP RESEARCH MODEL AND APPLICATION: THE STEPS

- 1: DETERMINE RESEARCH QUESTIONS AND OBJECTIVES, DEFINE TERMS, IDENTIFY FACTORS OF SIGNIFICANCE, AND ESTABLISH A METHODOLOGY.
- 2: CREATE DATABASE AND EXAMINE GENERAL TRENDS PERTAINING TO SELECTED FACTORS: CUMULATIVE GRADE POINT AVERAGE, PROGRAM OF STUDY, ENROLLMENT DIVISION(S) OF COLLEGE, AND PATTERN OF ATTENDANCE.
- 3: DESIGN, ADMINISTER, AND ANALYZE THE RESULTS OF A STUDENT SURVEY TO DETERMINE GED RECIPIENT PERCEPTION OF MOTIVATION TO ENROLL; ACCESSIBILITY, SATISFACTION, AND USE OF SUPPORT SERVICES; AND NEED FOR SPECIAL PROGRAM(S) OR ASSISTANCE.
- 4: DESIGN, ADMINISTER, AND ANALYZE THE RESULTS OF A SURVEY FOR COLLEGE FACULTY/STAFF AND/OR AGENCIES/BUSINESSES TO DETERMINE PERCEPTIONS OF REASONS FOR SUCCESS.
- 5: REVIEW RESULTS OF TWO SURVEYS ALONG WITH GENERAL TRENDS.
- 6: COMPARE FINDINGS WITH RESULTS OF STUDIES PUBLISHED TO DATE.
- 7: COMPLETE FINAL REPORT AND MAKE RECOMMENDATIONS TO LOCAL, REGIONAL, AND NATIONAL LEADERS.

B. STEP 1: DETERMINE RESEARCH QUESTIONS AND OBJECTIVES, DEFINE TERMS, IDENTIFY FACTORS OF SIGNIFICANCE, AND ESTABLISH A METHODOLOGY.

1. The major purpose of the research was to analyze the data available about students who were succeeding and to look for ways to improve the chances for success for

others. My approach was to listen to what those who enrolled and remained enrolled at North Shore Community College had to say. I chose not to consider whether students, who started with a GED, had failed or dropped out.

2. The research questions were as follows:

What motivates the GED recipient to enroll at North Shore Community College?

How does the GED recipient perform academically at North Shore Community College?

Does the GED recipient need, easily access, and/or regularly use the student services at North Shore Community College?

What improvement in service delivery of the Center for Alternative Studies and North Shore Community College would help future GED recipients be successful at the college?

3. For the purpose of this study, "successful at North Shore Community College" was defined as meaning that the student had:

- o Attended more than one semester.
- o Matriculated into a specific program of study.
- o Earned a cumulative grade point average of at least 1.00 -1.99.

4. The study sample was a representational group of 160 GED recipients who had been successful at North Shore Community College. Each member of the group had enrolled in one or more credit courses in the Fall Semester of 1986, and had earned a Massachusetts State High School Equivalency Certificate by successfully passing the General Educational Development Tests between 12/31/77 and 9/6/86.

Students were located by using the College's Student Demographic File to identify names of students enrolled in the Fall of 1986, who had initially begun studies with a GED. Out of the group of 262 students identified, 160 students met the criteria of "success." 102 had either enrolled one semester only and then withdrew. Using GED Test Center records, I identified twenty-seven students who took the tests at NSCC; thus, 133 took the tests at other centers in Massachusetts and throughout the United States.

C. STEP 2: CREATE DATABASE AND EXAMINE GENERAL TRENDS PERTAINING TO SELECTED FACTORS: CUMULATIVE GRADE POINT AVERAGE, PROGRAM OF STUDY, ENROLLMENT DIVISION(S) OF COLLEGE, AND PATTERN OF ATTENDANCE.

The second step in the research was to examine general trends. In order to do this, data was entered on the IBM PC/XT and prepared for analysis using adapted software for the D Base III. The four selected factors were: (1) cumulative grade point average; (2) program of study; (3) division of college; (4) pattern of attendance.

**Cumulative Grade Point Average
Data**

In order to answer the question - "How did the GED student perform academically at North Shore Community College?", I looked at cumulative grade point averages and found that the GED student sample proved to be highly successful.

Of the general group, 56 percent or 89 students earned a cumulative grade point average of 3.00 to 4.00, a B to A+; 37 percent or 60 students earned a cumulative grade point average of 2.00 to 2.99, or a C to B-; and seven percent or 11 students, a cumulative grade point average of 1.00 to 1.99, or a D to C-. (See Chart I. A., General Trends by Academic Cluster/Cumulative Grade Point Averages.)

CHART I. A. GENERAL TRENDS BY ACADEMIC CLUSTER/CUMULATIVE GRADE POINT AVERAGES (N=160)

Programs	3.00 - 4.00	2.00 - 2.99	1.00 - 1.99	# of Students
GROUP I				
Human Services	28/70%	11/18%	1/2%	40
Health	7/64%	4/36%	0/0%	11
Liberal Arts/ Special Programs	28/59%	14/30%	5/11%	47
	63/64%	29/30%	6/6%	98

CHART I. A. GENERAL TRENDS BY ACADEMIC CLUSTER/CUMULATIVE GRADE POINT AVERAGES (N=160) (Continued)

Programs	3.00 - 4.00	2.00 - 2.99	1.00 - 1.99	# of Students
GROUP II				
Office Technology	7/41%	7/41%	3/18%	17
Business	14/44%	15/47%	3/18%	32
Industrial Technology	5/38%	8/62%	0/0%	13
	26/42%	30/48%	6/10%	62
TOTALS	89/56%	59/37%	12/7%	160

Cumulative grade point averages were reviewed by program clusters to note any significant difference according to program. The highest cumulative grade point averages earned were in Group I: Human Services, Health, and Liberal Arts and Special Programs. These three areas included 98 enrolled students. Nearly 64 percent or 63 students earned a 3.00 to 4.00. Thirty percent or 29 students earned a 2.00 to 2.99, and only six percent or six students, a 1.00 to 1.99.

In the Human Services area, of 40 students, 70 percent or 28 students earned a CGPA of 3.00 to 4.00; 28 percent or 11 students earned a 2.00 to 2.99. Two percent or one student earned a 1.00 to 1.99.

In the Health area, of 11 students, 64 percent or seven students earned a 3.00 to 4.00 and 36 percent or four students earned a 2.00 to 2.99.

In the Liberal Arts/Special Programs area, of 47 students, 59 percent or 28 students earned a 3.00 to 4.00; 30 percent or 14 students earned a 2.00 to 2.99. Eleven percent or five students earned a 1.00 to 1.99.

Cumulative grade point averages were lower in Group II: Office Technology, Business, and Industrial Technology. Of the 62 enrolled students in this group, only 42 percent or 26 students earned a 3.00 to 4.00.

In the Office Technology area, of 17 students, 41 percent or seven students earned a 3.00 to 4.00; 41 percent or seven students, a 2.00 to 2.99. Eighteen percent or three students earned a 1.00 to 1.99.

In the Business Program, of 32 students, 44 percent or 14 students earned a 3.00 to 4.00; 47 percent or 15 students earned a 2.00 to 2.99. Eighteen percent or three students earned a 1.00 to 1.99.

In the Industrial Technology area, of 13 students, 38 percent or five students earned a 3.00 to 4.00; 62 percent or eight students earned a 2.00 to 2.99.

Questions

I wondered why the students enrolled in Group I had higher CGPAs than those enrolled in Group II. Looking at the academic background of each group, I realized that in Group I, Human Services and Health Programs were highly structured, had few electives, usually required an acceptance interview with the program coordinator, and some programs required mastery in pre-requisite courses such as biology and chemistry. I also recognized that Human Services and Health faculty/program coordinators provided a lot of support and spent a lot of time with individuals and groups. However, Liberal Arts, the third program of Group I, would appear to offer little structure. I realized that the programs in Group II were more technical in nature than those in Group I.

I also wondered if the Health, Human Services, and Liberal Arts/Special Programs could be considered philosophical and personal in nature, not requiring the technical skills of the Office Technology, Business, and Industrial Technology Programs. I wondered if GED students were either more oriented toward the non-technical programs or if they needed math or technical skill preparation to achieve higher grades. I hoped that all of the questions raised might be answered by the survey results.

Division of College

Academic performance of the general sample group was not influenced by Division of enrollment. Thirty-nine percent or 63 students attended Days only, and 61 percent or 97 students attended both Day and Evening classes. The total cumulative grade point average of those attending Days only was 2.95 and those attending Days and Evenings, 3.12. What is significant is that students starting with a GED were successful if enrolled Days only or transferred between Days and Evenings. No students in the study were DCECS only. Thus, for the purpose of this study, I did not have a group of students in the survey who were successful to derive input to help others who attend only the Evening Division succeed. This group may need to be studied separately and criteria for success different, for example: completion of

one semester. They may be leaving too quickly or not matriculating into a program of study until much later. (See Chart II. A., General Trend Information: Comparison of Cumulative Grade Point Averages per Division of Enrollment.)

CHART II. A. GENERAL TREND INFORMATION: COMPARISON OF CUMULATIVE GRADE POINT AVERAGES PER DIVISION OF ENROLLMENT

	3.00 - 4.00	2.00 - 2.99	1.00 - 1.99	AVG. CGPA	ENROLLED
Days Only	32/51%	26/41%	5/8%	2.95	63/39%
Days/ Evenings	57/59%	33/34%	7/7%	3.12	97/61%
TOTALS	89/56%	59/37%	12/7%	3.06	160

An indepth analysis of the student sample, Chart II. B., can be found on page 45.

Attendance Pattern

Academic performance was not seriously influenced by attendance pattern. Fifty-one percent or 82 students attended consecutive Fall and Spring Semesters. Forty-seven percent or 75 students followed a mixed attendance pattern: e.g., attending one semester, skipping the next, and coming back a third or skipping two in a row. In other words, whether a student attends consecutive semesters or skips a semester or two had little bearing on performance in College. (See Chart III. A., General Sample Trend by Academic Performance by Attendance Pattern.)

CHART III. A. GENERAL SAMPLE TRENDS BY ACADEMIC PERFORMANCE BY ATTENDANCE PATTERN (N = 160)

	3.00 TO 4.00	2.00 TO 2.99	1.00 TO 1.99	LESS THAN 1.00	AVG CGPA	TOTALS
Continuous	45/55%	31/38%	6/7%	0/0%	3.08	82/52%
Mixed	42/56%	27/36%	6/8%	0/0%	3.04	75/47%
Sporadic	2/67%	1/33%	0/0%	0/0%	3.04	3/2%
TOTALS	89/56%	59/37%	12/7%	0/0%	3.06	160

The in-depth analysis of attendance patterns of students within each program are reflected in Charts III. B. and III. C., which are found on pages 47 and 48.

D. STEP 3: DESIGN, ADMINISTER, AND ANALYZE THE RESULTS OF A STUDENT SURVEY TO DETERMINE GED RECIPIENT PERCEPTION OF MOTIVATION TO ENROLL; ACCESSIBILITY, SATISFACTION, AND USE OF SUPPORT SERVICES; AND NEED FOR SPECIAL PROGRAM(S) OR ASSISTANCE.

The next step was to design and administer a survey in order to determine (a) what motivates the GED recipient to enroll in college; (b) what services the GED student easily accesses and/or regularly uses; and (c) whether or not a special program would be needed for GED recipients.

The survey was divided into three sections: background information; education, pre-GED and after-GED College enrollment; and suggestions pertaining to the need for a further program for helping other students with a GED. (A copy of the letter to students and the survey can be found in Appendix A., pp. 15-20 of the Research Report.)

The survey was sent to the identified 160 students in May of 1987 with a return envelope, requesting a response by June, 1987. Forty students responded by the deadline. In July of 1987, I telephoned all individuals who had not responded and sent a second survey to them with a personal handwritten note, referencing the telephone call if a connection was made and expressing appreciation of their interest. By the end of August, a total of 87 or 54 percent of the students had responded.

**SURVEY ANALYSIS
SECTION 1 - GENERAL INFORMATION**

There were 23 males and 64 females in the student survey sample. The average current age of these students was 32.2 years. The average age of students when they completed their GED was 25.6 and the average age the first semester of enrollment at NSCC was 29.1. Thus, the average number of years between completing the GED and enrolling at the college was three and one-half years.

Sixty-seven percent or 58 students indicated that they were working while attending college. Thirty-three percent or 28 students responded that they worked full-time; 34 percent or 30 students worked part-time and 33 percent or 29 students did not respond to the question.

I asked if the student supported him/herself. Fifty-three percent or 46 students responded "yes;" 43 percent or 37 students responded "no;" and four percent or four students did not answer the question. I must presume that the 43 percent who responded "no" were either supported by their spouses/families or received some kind of aid.

I asked if they were financially responsible for others. Fifty-five percent or 48 students responded "yes;" 40 percent or 35 students

responded "no;" and five percent or four students did not answer the question.

I asked if they had obtained their GED to earn a promotion on their job. Twenty-one percent or 18 students responded "yes;" 62 percent or 54 students responded "no;" and 17 percent or 15 students did not answer.

Another question inquired if they obtained their GED for access to skill training. Sixty-three percent or 55 students responded "yes;" 24 percent or 21 students responded "no;" and 13 percent or 11 students did not answer.

I asked if they used public transportation to attend college. Seventeen percent or 15 students responded "yes" and 83 percent or 72 students responded "no." (See Chart IV: Comparison Analysis: Reasons for Enrollment in College on page 50.)

SECTION 2 - EDUCATION

Before Taking the GED

Questions were asked to determine educational background and what preparation the students had before they attempted the GED.

What grade of formal school did you complete?

Thirty-six percent or 31 students completed the 11th grade. Thirty-seven percent or 32 students completed the 10th grade. Twenty percent or 18 students completed the 9th grade. Five percent or four students completed the 8th grade. Two percent or two students completed the 6th grade. (See Chart IX. B. and IX. C. on pages 64 and 65.)

I also asked if they had enrolled in a GED Preparation Program prior to taking the GED tests and to identify the program. Forty-four percent or 38 students had enrolled in a formal preparation program; 26 percent or 23 students did not; and 30 percent or 26 students did not answer the question. (See Chart IX. A. on page 62.)

The GED preparation programs were identified as follows: Operation Bootstrap, Inc. Learning Center; North Shore Community College Adult Learning Center; Adult Basic Education Preparation Center, Peabody (all supported by Adult Education funding); Community Education Training GED classes (funded by ACTION); Self-Help, Inc., Brockton; United States Armed Forces GED Program; Educational Opportunity Center; Beverly High School, Night School Adult Program.

The next question I addressed was how they heard about and/or who referred them to the GED services at North Shore Community College. The following list identifies the number of times a particular referral was cited: friends/family - 28; welfare - four; newspapers - one; high schools - six; NSCC Staff - three; self - three; former students - two; Operation Bootstrap - five; Lynn Opportunity Center - one; Salem Area

Employment and Training Act/Northshore Employment Training - three; Educational Opportunity Center - one; Massachusetts Rehabilitation - one; and military - one.

I then addressed the reason why they took the step toward earning a GED.

Twenty-eight individuals stated they wished to further their education/enroll in college. Twelve individuals wanted to finish high school. Four individuals stated it was encouragement from friends and family. Fourteen individuals stated it was to improve chances for work. Sixteen stated self-improvement. Two stated it was a requirement for military service. Sixteen individuals did not answer.

Next, I needed to determine if they had decided to attend college before or after they had completed their GED. Forty-eight percent or 42 students decided to enroll before taking the GED. Thirty-seven percent or 32 students decided after completing the GED tests. Fifteen percent or 13 students did not answer the question.

I asked what was the major reason they decided to attend college. The 87 students' responses totalled 152. The following list specifies the reasons: to obtain an Associate Degree - 51; to improve chance for a better job - 36; to learn specific skills - 30; to obtain employment - 14; to take courses to transfer to another college - nine; to be eligible for promotion - five; and other reasons - seven. (See Chart IV: Comparison Analysis: Reasons for Enrollment in College on page 50.)

The students were asked to identify information about North Shore Community College that they looked at/heard prior to attending. Eighty-one or 93 percent of the students gave 152 responses. Fifty-one received information from friends/family; 36 received the college catalogue; 29 individuals identified that they had looked at a program brochure; 18 individuals received a letter from the college; nine individuals received information through a newspaper ad; eight individuals stated they had received information through other sources; one received information through a newspaper article; and one received information via Cable TV. Six individuals did not answer the question.

After Completing GED - College

The first question asked was "Who encouraged you to begin your studies at North Shore Community College and/or who encouraged you to keep studying even when you considered the possibility of not achieving your educational goal." There were 131 responses by 84 individuals: Family - 39; friends - 39; individuals at work - 13; individuals in community agency - 12; self - 20; NSCC staff - eight; did not answer - three.

Next, the attendance of the students was addressed. Students were asked the number of classes attended during most semesters. Six students attended one to two classes at a time; 21 students, two to three

classes; and 41 students, four to five classes. Nineteen students did not answer the question.

Students were asked their attendance status. Fifty-eight responded that they attended full-time day; 23 responded that they were part-time students; and six did not answer the question.

The students were asked to identify which campus they attended. Thirty-five responded Beverly only; 18 responded Lynn only; and 32 responded both campuses; and two did not answer the question.

When students were asked to identify supporting personnel either by name or job title, they named 181 individuals. They included Faculty Members/Coordinators/Advisors, the Financial Aid Officer, Counselors, Tutors at Academic Assistance Center, Staff at Center for Alternative Studies, Admissions Counselors, Receptionists, and Administrators.

Students were also asked to identify support services used and to indicate satisfaction/dissatisfaction. Eighty-five of the respondents completed/partially completed this section. Two individuals did not answer.

Academic Assistance Center - 56 percent or 48 students were satisfied; five percent or four students were dissatisfied; 39 percent or 33 students did not answer.

Academic Advising - 69 percent or 59 students were satisfied; eight percent or seven students were dissatisfied; and 22 percent or 19 students did not answer.

Administrative Offices - 48 percent or 41 students were satisfied; nine percent or eight students were dissatisfied; and 43 percent or 37 students did not answer.

Admissions Orientation/Assessment - 59 percent or 50 students were satisfied; ten percent or nine students were dissatisfied; and 31 percent or 26 students did not answer.

Center for Alternative Studies - 56 percent or 48 students were satisfied; two percent or two students were dissatisfied; and 42 percent or 36 students did not respond.

Counseling - 55 percent or 47 students were satisfied; four percent or three students were dissatisfied; and 41 percent or 35 students did not answer.

Financial Aid - 46 percent or 39 students were satisfied; 27 percent or 23 students were dissatisfied; and 27 percent or 23 students did not answer.

Receptionist - 64 percent or 54 students were satisfied; seven percent

or six students were dissatisfied; and 29 percent or 25 students did not answer.

Student Activities - 32 percent or 27 students were satisfied; 68 percent or 58 students did not answer.

(See Chart VII., Student Indication of Use and Satisfaction with College Services.)

CHART VII. STUDENT INDICATION OF USE AND SATISFACTION WITH COLLEGE SERVICES (N = 85)

	ACAD ADV	ACAD ASST	ASMSS	CAS	COUNS	FA	LRC	SA
<u>GROUP I</u>								
HUMAN SERVICES, LIBERAL ARTS & SPECIAL PROGRAMS, HEALTH	39	27	33	29	33	21	27	20
	75%	52%	63%	56%	63%	40%	52%	38%
<u>GROUP II</u>								
OFFICE TECHNOLOGY, BUSINESS, INDUSTRIAL TECHNOLOGY	20	21	17	19	14	18	14	7
TOTAL	59	48	50	48	47	39	41	27
	69%	56%	59%	56%	55%	46%	48%	32%

CODE:

ACAD ADV = Academic Advisor

ACAD ASST = Academic Assistance

ADMSS = Admissions

CAS = Center for Alternative Studies

COUNS = Counseling

FA = Financial Aid

LRC = Learning Resource Center (Library and Instructional Media Services)

SA = Student Activities

The students were also asked how any of the services could be improved. Sixty-seven percent or 58 students responded and 33 percent or 29 students did not answer the question.

The majority of the students responded that all service offices should be open more and be better staffed, and that there should be more advertising of the services to let students know where and when they can get help.

The students were then asked to state reasons for not using the services. Of the 38 percent or 33 students who responded, the majority stated they did not need the services. Sixty-two percent or 54 students did not answer the question.

SECTION 3

Helping Others Starting College With a GED

I asked if a special program/service should be created to assist individuals who begin North Shore Community College by taking GED tests. Seventy-seven percent or 67 students stated "yes;" 16 percent or 14 students stated "no;" and seven percent or six students did not answer.

I asked the students to make suggestions for such special programs. Forty-nine percent or 43 students responded with suggestions and 51 percent or 44 students did not answer the question. The majority answered that a GED Alumni Association would be helpful. Other suggestions were to link GED recipients with individuals already enrolled in North Shore Community College; to develop a program linked with The Motivation to Education Program; and to develop information packets for GED students on all the services provided at the College.

I asked if the student was willing to be involved if a program or service was created. Forty-seven percent or 41 students stated "yes;" eight percent or seven students stated "maybe;" 34 percent or 29 students stated "no;" and 11 percent or ten students did not answer.

Lastly, I asked for additional comments. Forty-nine percent or 43 students commented and 51 percent or 44 students did not answer. The majority referred to the encouragement the students received from North Shore Community College staff-encouragement which helped them to succeed at college, raise their self-esteem, improve their life, and make them a professional. Several students stated that NSCC was an institution with a "family-like" bond.

ACADEMIC CLUSTERS

1. HUMAN SERVICES

Of the 160 students in the initial study group, 40 students were enrolled in eight programs. These programs were Mental Health, Infant/Toddler, Gerontology, Alcohol and Drug Counseling, and Early Childhood Education. Twenty-five students who responded to survey were enrolled in Paralegal (five), Gerontology (seven), Drug and Alcohol Counseling (four), Mental Health-Mental Retardation (five), Criminal Justice (three), and Infant/Toddler Day Care (one). (See Student Profile for Human Services.)

STUDENT PROFILE FOR HUMAN SERVICES

CUMULATIVE GRADE POINT AVERAGE

	3.00-4.00	2.00-2.99	1.00-1.99
General Sample: 40 students	28 or 70%	11 or 28%	1 or 3%
Survey: 25 students	22 or 88%	3 or 22%	

GED

Students who earned GED through CAS/NSCC: 5	4	1
Total GED scores	226-292	225

PREPARATION

Prepared for GED through formal program	10
Did not prepare through formal program	15
Enrollment decision prior to taking GED	13
Enrollment decision after GED completion	12

AGE

	16-20	21-25	26-30	31-35	36-40	41-50	51-60	60+
Age took GED	5	3	2	4	3	5	1	
Age began College	1	1	5	2	5	7	1	1

Difference between year completed GED and enrolled NSCC

Same year	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10
7	2	1	0	1	4	0	1	4	0	3

REASONS FOR ENROLLMENT

To obtain Associate Degree or Certificate	11
To take courses to transfer to another college	1
To obtain employment	3
To be eligible for promotion at current company	2
To improve chances for better job	8
To learn specific skills for self-improvement	7
Other	1

REFERRAL

	N/A	Family	Friends	Work	Agency	Self	Other
How Heard							
About GED	12		3	1	5	1	3
Referral/ Encouragement		19	13	5	7	5	3

Agencies: Bootstrap, LEO, CETA, Salem Welfare

Other: Classmates, literature, military, NSCC office, teacher

ATTENDANCE

General Sample:	
Consecutive	23 or 58%
Mixed	17 or 42%
Sporadic	0
Sample Survey:	
Full-time only	14
Part-time only	10
Full and Part-time	1

CAMPUS

Beverly only	6
Lynn only	7
Beverly & Lynn	11

HOW ATTENDED CLASSES MOST SEMESTERS

1-2 courses at a time	3
2-3 courses at a time	7
4-5 courses at a time	13
Did not answer	2

SERVICES USED AND RATED SATISFACTORY

Academic Assistance	11 or 44%
Academic Advising	19 or 76%
Administrative Offices	10 or 40%
Admissions Orientation/Assessment	15 or 60%
Center for Alternative Studies	11 or 44%

Counseling	14 or 56%
Financial Aid	9 or 36%
Learning Resource Center	11 or 44%
Student Activities	10 or 40%
Receptionist/Office Staff	15 or 60%

NAMES OF COLLEGE PERSONNEL WHO WERE SUPPORTIVE

There were 41 responses by 21 students. I have listed the responses within each program.

Paralegal Students (5 students responded)

Jackie DeLorenzo	Sue Jhirad	
Joe Dever	Nancy Lewis	2
Maryellen Hunt	Ellen O'Donnell	3

Gerontology Students (6 students responded)

Carrellen Brown	William O'Brien	
Tom McLachlan	Nancy Terry	3

Drug/Alcohol Students (4 students responded)

Linda Budd	Paulette Massari	
Marilyn Dorfman	William O'Brien	
Eileen Edelstein	Howard Sylvetsky	2
Espy Herrera		

Mental Health Students (4 students responded)

Carrellen Brown	Maggie LaBella	3
Katie Herzog	William O'Brien	3

Criminal Justice Students (4 students responded)

Carrellen Brown	William O'Brien	
Glenn DuBois	Nancy Terry	

Infant/Toddler Day Care Students (1 student responded)

Joseph Boyd	Espy Herrera	
Eileen Edelstein	Howard Sylvetsky	
Sue Ferrante		

Program Unspecified (1 student responded)

William Byard

NUMBER OF STUDENTS WHO RECOMMENDED SPECIAL PROGRAM: 22

NUMBER INTERESTED IN BEING INVOLVED: YES - 14

COMMENTS -QUOTED

If it was not for Bill O'Brien's encouragement, I would not have come this far in my schooling.

Positive reinforcement when I started that my GED got me this far.

Self-esteem is an issue when you say "GED."

Something psychologically has interrupted someone's life.

Dr. Eileen Edelstein has greatly influenced my life. Her enthusiasm and commitment for teaching and in guiding those who require more attention has assisted in my development and my willingness to take risks.

I thrive on caring, structure and commitment and I got it at NSCC.

After coming to college after 25 years, it was very scary. I think linking people up with a established student would be a great support to a new student.

A GED Service Program is worthwhile. There is much stress with going back to school after many years as well as trying to hold down jobs, raise families, etc.

When I took the GED it was to meet my mother's desire to have me complete high school. It was later that I found it useful to enter college.

NSCC has helped to spur me on to achieve my potential.

I would very much like to see other single parents get the chance that I have been given at NSCC.

I had a positive experience going to NSCC. I met a lot of friends there and feel much better about myself. I have grown a lot by going to school. It was great.

I enjoyed the wonderful experiences I had at NSCC. The atmosphere and people were just wonderful. I graduated, but I have a positive feeling about NSCC's future endeavors.

NSCC should coordinate a program for a student who takes day and evening courses for a degree.

My experience at NSCC changed me; my attitudes and opinions about myself. I entered shy, fearful and with low self-esteem. I left NSCC confident in myself and my own capabilities knowing if I could succeed there, I could succeed anywhere.

2. HEALTH

Of the 160 students in the initial study group, 11 students were enrolled in three programs. These programs were Radiologic Technology, Physical Therapy Assistant, and Nurse Education. The eight students who completed survey were enrolled in Physical Therapy Assistant (two), Radiologic Technology (two) and Nurse Education (four). (See Student Profile for Allied Health and Nurse Education.)

STUDENT PROFILE FOR ALLIED HEALTH AND NURSE EDUCATION

CUMULATIVE GRADE POINT AVERAGE

	3.00-4.00	2.00-2.99	1.00-1.99
General Sample: 11 students	7 or 64%	4 or 36	
Survey: 8 students	7 or 88%	1 or 12%	

GED

Students who earned GED through CAS/NSCC: 3	2	1
Total GED scores	245-309	245

PREPARATION

Prepared for GED through formal program	2
Did not prepare through formal program	6
Enrollment decision prior to taking GED	5
Enrollment decision after GED completion	3

AGE

	16-20	21-25	26-30	31-35	36-40	41-50	51-60	60+
Aged took GED	3	2	2	1				
Age began College	3	1	2	1	1			
	Same year	+1	+2	+18				
Difference	3	3	1	1				

REASONS FOR ENROLLMENT

To obtain Associate Degree or Certificate	6
To take courses to transfer	
To obtain employment	3
To improve chances for better job	4
To learn specific skills for self-improvement	6
Other	

REFERRAL

	N/A	Family	Friends	Work	Agency	Self	Other
How Heard							
GED	1	2		1	1	1	1
Referral/ Encouragement		4	3	1	1	2	

Agencies: Welfare, Prep Center
Other: Newspaper

ATTENDANCE

General Sample:
Consecutive 4 or 36%
Mixed 7 or 64%
Sporadic 0

Sample Survey:
Full-time only 6
Full and Part-time 2

CAMPUS

Beverly only 7
Beverly & Lynn 1

HOW ATTENDED CLASSES MOST SEMESTERS

2-3 courses 2
4-5 courses 3
Did not answer 3

SERVICES USED AND RATED SATISFACTORY

Academic Advising	4 or 50%
Academic Assistance	5 or 63%
Administrative Offices	7 or 88%
Admissions Orientation/Assessment	4 or 50%
Center for Alternative Studies	6 or 75%
Counseling	6 or 75%
Financial Aid	2 or 25%
Learning Resource Center	4 or 50%
Student Activities	2 or 25%
Receptionist/Office staff	6 or 75%

NAMES OF COLLEGE PERSONNEL WHO WERE SUPPORTIVE

There were 17 responses by seven students.

Financial Aid

Jackie DeLorenzo 3

Math Lab

Richard Jennett

Nurse Education

Sr. Marie Branfield
 Deanna Cross 2
 Adena Doyle
 Judy Maxfield 2
 Jane Rowe
 Roberta Whalen
 Starr Williams

Radiologic Technology

Robert Montgomery

English

John Nelson

Special Services

Carrellen Brown
 Nancy Terry

NUMBER OF STUDENTS WHO RECOMMEND SPECIAL PROGRAM: 4
 NUMBER INTERESTED IN BEING INVOLVED: YES - 2

COMMENTS - QUOTED

Education is so important. I think it's great to have a GED Program at the College.

I am pleased and proud that I had the opportunity to attend NSCC. Every course I took from Arts to the Sciences and Nurse Education had exceptionally well-educated faculty. I only have praise for each and every professor/instructor I had. I feel I received an excellent education. Thank you.

Tutors and counselors need to watch their attitude and actions toward the mature students.

I am very glad that I obtained my GED and have graduated from the Rad Tech Program. I have done very well while in the program and have worked very hard. I have NSCC to thank for this.

I hope that some GED service program can be formulated and succeed so that more individuals that are in a position that I was can obtain their goals and career choices.

3. LIBERAL ARTS AND SPECIAL PROGRAMS

Of the 160 students in the initial study group, 47 students were enrolled in five categories. These programs were identified as Liberal Arts Transfer, General Studies Transfer and Special Programs. The twenty students who responded to the survey were enrolled in General Studies (15) and Liberal Arts (five). (See Student Profile for Liberal Arts and Special Programs.)

STUDENT PROFILE FOR LIBERAL ARTS AND SPECIAL PROGRAMS

CUMULATIVE GRADE POINT AVERAGE

	3.00-4.00	2.00-2.99	1.00-1.99
General Sample: 47 Students	28 or 59%	14 or 30%	5 or 11%
Survey: 20 students	8 or 40%	12 or 60%	

GED

Students who earned GED through CAS/NSCC: 8	3	5
Total GED scores	235-328	275-325

PREPARATION

Prepared for GED through formal program	5
Did not prepare through formal program	15
Enrollment decision prior to taking GED	10
Enrollment decision after GED completion	10

AGE

	16-20	21-25	26-30	31-35	36-40	41-50	51-60	60+
Age took GED	10	7				2		
Aged began College	5	6	3	3		2		

Same year	+1	+2	+3	+4	+5	+6	+7	+13
7	6	1				1	2	2

REASONS FOR ENROLLMENT

To obtain an Associate Degree or Certificate	13
To take courses to transfer	5
To obtain employment	2
To be eligible for promotion	3
To improve chances for a better job	8
To learn specific skills for self-improvement	6
Other	5

REFERRAL

	N/A	Family	Friends	Work	Agency	Self	Other
How Heard about GED	8	5	5		1	1	3
Referral/Encouragement		5	8	3		4	5

How heard about GED:

Agency: Bootstrap

Other: Gloucester High School, Beverly High School, unidentified high school

Referral/Encouragement Other: Espy Herrera, GED Center, Motivation, Program Advisor, Teacher

ATTENDANCE

General Sample:

Consecutive 20 or 43%

Mixed 25 or 53%

Sporadic 2 or 4%

Survey Sample:

Full-time Only 14

Part-time Only 5

CAMPUS

Beverly Only 10

Lynn Only 5

Beverly & Lynn 5

HOW ATTENDED MOST SEMESTERS

1-2 courses 3

2-3 courses 3

4-5 courses 11

Did not answer 3

SERVICES USED AND RATED SATISFACTORY

Academic Advising	16 or 80%
Academic Assistance	11 or 55%
Administrative Offices	8 or 40%
Admissions Orientation/Assessment	14 or 70%
Center for Alternative Studies	12 or 60%
Counseling	13 or 65%
Financial Aid	10 or 50%
Learning Resource Center	12 or 60%
Student Activities	8 or 40%
Receptionist/Office Staff	12 or 60%

NAMES OF COLLEGE PERSONNEL WHO WERE SUPPORTIVE

There were 68 responses by 13 students.

English Department

Sue Herman
Sue Jhirad 2
Nancy Lewis 3
John Nelson

Media

Peter Foss

Humanities

Edna Chansky

Human Services

Art Underwood

Math

John Tobey

Counseling

Linda Budd 3
Tom Gerecke 3
Peter Monaco
Jill Ritchie

Special Services

Carrellen Brown 4
Helen Graham 2
Elaine O'Brien
William O'Brien 2
Nancy Terry 3

Administrators

Jim Billings
Bert Blumenkrantz
Dean Derderian
Kathe German
David Wharton

Behavioral Science

Paul Bates 3
Jessica Brooks 3
Eileen Edelstein
Bob Francis
Walter Mott 2

History

Harry Bowen
Elaine Israelsohn
Robert Matthews

Aviation Science

Robert Finkelstein

Natural Science

Lou Anoli
Doris Ashton

Learning Resource Center

Rosemarie Levesque

Financial Aid

Peg Adams 2
Jackie DeLorenzo
Espy Herrera 2
Ron Prentis

Academic Assistance

Marilyn Dorfman
Lynn Furler
Jean Keith
Beverly Verrengia
Lois West

Center for Alternative Studies

Nancy Murphy

Receptionist

Anita Kaufman
Shirley Robinson

Other

Susan Bulba

NUMBER OF STUDENTS WHO RECOMMEND SPECIAL PROGRAM: 18
NUMBER INTERESTED IN BEING INVOLVED: YES - 9; MAYBE - 4

COMMENTS-QUOTED

Lots of single mothers are finding the need to further their education. Maybe a day care center should be looked into.

I feel the Center for Alternative Studies/Motivation Program should/could work together. In my experience at NSCC, faculty members and many more have been outstandingly helpful.

I think the time that NSCC puts into helping all its students is commendable. I cannot describe the enormous amount of support and encouragement I received from my teachers. I would have to say I felt it would be a disservice to their prodding if I failed.

I have been very satisfied with how things are done at NSCC.

Achieving at NSCC spurred me on to achieving more.

4. OFFICE TECHNOLOGY

Of the 160 students in the initial study group, 17 students were enrolled in four programs. Concentrations included Executive Secretarial, Medical Secretarial, Office Information Processing and Word Processing Assistant. The seven students who completed the survey were enrolled in Office Information Processing (four), Executive Secretarial (two), and Word Processing Certificate Program (one). (See Student Profile for Office Technology.)

STUDENT PROFILE FOR OFFICE TECHNOLOGY

CUMULATIVE GRADE POINT AVERAGE

	3.00-4.00	2.00-2.99	1.00-1.99
General Sample: 17 students	7 or 41%	7 or 41%	3 or 18%
Survey: 7 students	2 or 29%	5 or 71%	

GED

Students Who earned		
GED through CAS/NSCC: 2	1	1
Total GED Scores	267	252

PREPARATION

Prepared for GED through formal program	6
Did not prepare through formal program	1
Enrollment decision prior to taking GED	2
Enrollment decision after GED completion	5

AGE

	16-20	21-25	26-30	31-35	36-40	41-50	51-60	60+
Took GED	3	4						
Began NSCC	2	4			1			
Same year	+1	+2	+3	+4	+14			
	2	2	2	0	0	1		

REASONS FOR ENROLLEMENT

To obtain Associate Degree/Certificate	4
To obtain courses to transfer to another college	0
To obtain employment	1
To be eligible for promotion at current company	0
To improve chances for better job	2
Other	0

	REFERRAL					
	N/A	Family	Friends	Work	Agency	Self Other
How Heard						
About GED	2	4				1
Referral/						
Encouragement		5	2		2	1
Other/Agencies: Not identified						

ATTENDANCE

General Sample:

Consecutive Semesters	10	59%
Skipped Semester and Returned	7	41%
Sporadic	0	

Survey Sample:

Full-time Only	4
Part-time Only	
Full and Part-time	3

CAMPUS

Beverly Only	
Lynn Only	2
Beverly and Lynn	5

HOW ATTENDED CLASSES MOST SEMESTERS

2-3 courses	2
4-5 courses	3
Did not answer	2

SERVICES USED AND RATED SATISFACTORY

Academic Advising	5 or 71%
Academic Assistance	5 or 71%
Administrative Offices	6 or 86%
Admissions Orientation/Assessment	5 or 71%
Center for Alternative Studies	4 or 57%
Counseling	4 or 57%
Financial Aid	4 or 57%
Learning Resource Center	3 or 43%
Student Activities	2 or 29%
Receptionist/Office Staff	4 or 57%

NAMES OF COLLEGE PERSONNEL WHO WERE SUPPORTIVE

There were 11 responses by four students.

Peg Adams	Katherine Foley	Jennifer Rich
Susan Battis	Marsha Gadzera	Jill Ritchie
Carrellen Brown	Susan Jhirad	Judith Terban
Brenda Clark	Nancy Murphy	

NUMBER OF STUDENTS WHO RECOMMENDED SPECIAL PROGRAM: 5
NUMBER INTERESTED IN BEING INVOLVED: YES - 2; MAYBE - 2

COMMENTS - QUOTED

Young adults who have dropped out of high school need some kind of incentive; offering them a tuition voucher is a small step forward that most need to build up their self-confidence.

My time at NSCC has enhanced my life. I found just about everyone exceptionally helpful. It made me feel better about myself and raised my self-esteem and ambition.

Improved my life and self-esteem.

NSCC was one of the best things that ever happened to me. This is the only institution which has a "Family-Like" bond.

5. BUSINESS

Of the 160 students in the initial study group, 32 students were enrolled in seven programs. Concentrations included Aviation Science, Finance, Marketing, Management, Computer Programming and Business Transfer. The 23 students who responded to the survey were enrolled in Business Computer Programming (four), Aviation Science (one), Business Management Option (three), Business Accounting Option (six), Business Marketing Option (three), and Business Transfer (six). (See Student Profile for Business.)

STUDENT PROFILE FOR BUSINESS

CUMULATIVE GRADE POINT AVERAGE

	3.00-4.00	2.00-2.99	1.00-1.99
General Sample: 32 students	14 or 44%	15 or 47%	3 or 9%
Survey: 23 students	8 or 35%	15 or 65%	

GED

Students who earned GED through CAS/NSCC: 5	3	2
Total GED scores	243-306	269-288

PREPARATION

Prepared for GED through formal program	13
Did not prepare through formal program	10
Enrollment decision prior to taking GED	12
Enrollment decision after GED completion	11

AGE

	16-20	21-25	26-30	31-35	36-40	41-50	51-60	60+
Age took GED	9	3	7		3	1		
Age began College	4	4	5	6	3		1	

	Same year	+1	+2	+3	+4	+5	+6	+7	+10
Difference	6	5	3		1	2	1	1	4

REASONS FOR ENROLLMENT

To obtain Associate Degree or Certificate	13
To take courses to transfer to another college	3
To obtain employment	3
To be eligible for promotion at current company	
To improve chances for better job	9
To learn specific skills for self-improvement	8
Other	1

	REFERRAL						
	N/A	Family	Friends	Work	Agency	Self	Other
How Heard							
GED	6	2	3		9		3
Referral/ Encouragement		12	9	1	2	7	1

How heard: Agencies: Welfare - 1, Bootstrap - 3, CETA/SAETA-
2, Northshore Employment Training - 1,
Adult Basic Ed, Somerville - 1
Other: High School, Espy Herrera, NSCC
Referral: Agencies: Educational Opportunity Center, Mass
Rehab.
Other: NSCC

ATTENDANCE

General Sample:		
Consecutive	20	63%
Mixed	11	34%
Sporadic	1	3%

Survey Sample:	
Full-time Day	16
Part-time Day	6
Day & DCE	1

CAMPUS

Beverly Only	11
Lynn Only	5
Beverly & Lynn	7

HOW ATTENDED CLASSES MOST SEMESTERS

2-3 courses	5
4-5 courses	12
Did not answer	6

SERVICES USED AND RATED SATISFACTORY

Academic Advising	13 or 57%
Academic Assistance	13 or 57%
Administrative Offices	7 or 30%
Admissions Orientation/Assessment	9 or 39%
Center for Alternative Studies	12 or 52%
Counseling	9 or 39%
Financial Aid	13 or 57%
Learning Resource Center	10 or 43%
Student Activities	5 or 22%
Receptionist/Office Staff	14 or 61%

NAMES OF COLLEGE PERSONNEL WHO WERE SUPPORTIVE

There were 40 responses by 17 students.

Business Department

Judith Carter
 Terry Gemmel 2
 Paul Lospennato
 Art Neuner 3
 Peter Regan
 Jeff Slater
 John Sullivan 2
 Joseph Tabet

Office Technology

Sue Battis

Natural Science

William Byard
 John Pitts

Math

John Tobey

English/Media

Jean Hodgkin
 Nancy Lewis
 Dan Popp

ESL Program

DeeDee Magers

Academic Assistance

Janet Dauray
 Anita Kaplan
 Elaine O'Brien
 Rick Ponticello
 Beverly Verrengia
 Lois West

History

Robert Matthews

Behaviorial Science

Sheldon Brown
 Eileen Edelstein
 Walter Mott

Cultural Arts

Norm Cote

Financial Aid

Peg Adams
 Jackie DeLorenzo
 Espy Herrera
 Ron Prentis

Computer Science

Sandy Stalker

Aviation Science

Robert Finkelstein

Registrar

Norma MacDonald

Counseling

Peter Monaco

Receptionist

Shirley Robinson

NUMBER OF STUDENTS WHO RECOMMEND SPECIAL PROGRAM: 15
 NUMBER INTERESTED IN BEING INVOLVED: YES - 10; MAYBE - 2

COMMENTS - QUOTED

Regarding NSCC teaching staff, I find students should be able to comment on teachers every time they complete a course, not just in the Fall as some teachers have been a waste of time. You have my total support. I floundered for 10 years before deciding to continue my education. If I could help a younger person find their direction, it would be well worth the dues I have paid with my wanderings.

My circumstances were slightly more unusual than your average high school dropout, but I think college for under-educated people should be encouraged whenever possible.

At the beginning when I enrolled at NSCC, everything was so difficult for me. I did not know how to use a book or how to write a paper, but after I took the Precise Study Technique course everything began to fall in place. That course helped me so much that I can say it is the reason why I successfully graduated from NSCC. I feel very proud of my achievement.

I am a sober A.A. member. Until I got sober, I never took school too serious. Since I've been sober the Motivation Program has been a great support.

My four semesters at NSCC have been very great. Through the GED I was able to go to NSCC. I would encourage friend(s) who want the most out of life educationally to try it and see.

I was feeling down today until I received your letter. I do feel like a special person now. Thank you.

For me it was very important to know everything about the GED services because I got the opportunity to being enrolled as a full-time student. I would like to encourage people, basically in the Hispanic population, on how they can get to attend college via the GED services.

I am glad I was able to take the GED and attend college. Dropping out of school was a big mistake.

6. INDUSTRIAL TECHNOLOGY

Of the 160 students in the initial study group, 13 students were enrolled in six programs. Concentrations included Electro-Mechanics, Engineering, Electronics, Pre-Engineering, Manufacturing Engineering and Computer Technology. The four students who responded to the survey were enrolled in Engineering Science (two) and Manufacturing Engineering (two). (See Student Profile for Industrial Technology.)

STUDENT PROFILE FOR INDUSTRIAL TECHNOLOGY

CUMULATIVE GRADE POINT AVERAGE

	3.00-4.00	2.00-2.99	1.00-1.99
General Sample: 13 students	5 or 38%	8 or 62%	5 or 38%
Survey: 4 students	2 or 50%	2 or 50%	

GED

Students earned GED through CAS/NSCC: 3	2	1
Total GED Scores	309	264 - 273

PREPARATION

Prepared for GED through formal program	2
Did not prepare through formal program	2
Enrollment decision prior to taking GED	2
Enrollment decision after GED completion	2

AGE

	16-20	21-25	26-30	31-35	36-40	41-50	51-60	60+
Took GED		2			1		1	
Began NSCC Number		1		1		1	1	
	Same year	-1	+8					
	2	1	1					

REASONS FOR ENROLLMENT

To obtain Associate Degree or Certificate	4
To obtain employment	2
To improve chances for better job	2
To learn specific skills for self-improvement	1
Other	

	REFERRAL					
	N/A	Family	Friends	Work	Agency	Self Other
How Heard about GED	1		1			1
Referral/Encouragement		2	3			3

ATTENDANCE	
General Sample:	
Consecutive	5 or 38%
Mixed	8 or 62%
Sporadic	0

Survey Sample:	
Full-time Day only	1
Part-time only	2
Full and Part-time	1

CAMPUS	
Beverly only	1
Lynn only	
Beverly & Lynn	3

HOW ATTENDED CLASSES MOST SEMESTERS	
2-3 courses	1
4-5 courses	2
Did not answer	1

SERVICES USED AND RATED SATISFACTORY	
Academic Advising	2 or 50%
Academic Assistance	3 or 75%
Administrative Offices	3 or 75%
Admissions Orientation/Assessment	3 or 75%
Center for Alternative Studies	3 or 75%
Counseling	1 or 25%
Financial Aid	1 or 25%
Learning Resource Center	1 or 25%
Receptionist/Office Staff	3 or 75%

NAMES OF COLLEGE PERSONNEL WHO WERE SUPPORTIVE

There were four responses by two students.

Nancy Alberto Mackie Bastarache Roger Close Lois West

NUMBER OF STUDENTS WHO RECOMMENDED SPECIAL PROGRAM: 4

NUMBER INTERESTED IN BEING INVOLVED: YES - 2

E. STEP 4: DESIGN, ADMINISTER AND ANALYZE THE RESULTS OF A SURVEY FOR COLLEGE FACULTY/STAFF AND/OR AGENCY/BUSINESS TO DETERMINE PERCEPTIONS OF REASONS FOR SUCCESS.

The purpose of this survey was to derive a profile of the academic cluster in general and describe the relationship to the GED student in order to compare identified reasons for success, i.e., student perceptions with faculty and staff perceptions.

The faculty survey consisted of 12 questions and was administered to from one to three individuals within each Academic Cluster: a Division Chairperson, a Department Chairperson, and a Faculty Member. The administration of the survey was in person or by a telephone interview. I conducted a total of 18 interviews. Results by Academic Clusters follow.

**ACADEMIC CLUSTER: HUMAN SERVICES
PROGRAMS WITHIN CLUSTER**

Alcohol Counselor Certificate
Criminal Justice
Drug and Alcohol Rehabilitation
Early Childhood Education
Gerontology Certificate
Infant Toddler Child Care
Mental Health
Mental Retardation
Paralegal Assistant
Social Welfare/Gerontology
Teacher Aide Certificate

Program Coordinators for each program.

Enrollment interview required for Early Childhood, Mental Health, and Drug and Alcohol Rehabilitation.

Member of department was academic advisor within years '85 and '87.

Prerequisite to program admission if GED recipient:

- o No academic coursework recommended prior to program admission.
- o No specific work experience required.
- o Preference of one year of volunteer work.
- o For Drug and Alcohol Program, one year of sobriety required.

Number of follow-up interviews required with program advisors as student progresses through program. Two to six appointments per semester set up by student or program coordinator.

Pre-enrollment referrals made when student asks. Coordinators follow up.

Recruitment:

- o Coordinators on Task Forces with agencies.
- o Speaking to agencies.
- o Send letters to individuals identified by agencies as potential students.
- o Career fairs.
- o Special grants for target populations such as Displaced Homemakers.

Referrals to GED and to special grants. Referrals to appropriate special programs prior to enrollment.

Success Reasons Cited:

- o "GEDers" demonstrate higher motivation than general population.
- o General concern for whole person at NSCC.
- o The student acquires self-confidence passing GED and one staffer facilitates further development and growth.

**ACADEMIC CLUSTER: HEALTH
PROGRAMS WITHIN CLUSTER**

Nurse Education

Allied Health:

Emergency Medical Services Certificate

Occupational Therapy Assistant

Physical Therapist Assistant

Radiologic Technology

Respiratory Therapy Assistant

Coordinators for all programs.

Enrollment interview required for Allied Health Programs. Not required for Nurse Education, although Faculty willing to meet with prospective students.

Member of department was academic advisor within years '85 and '87. Faculty member in Department after student is matriculated.

Prerequisite to program admission if GED recipient:

- o academic coursework recommended prior to program admission- Algebra, Biology and Chemistry.
- o Test for Nurse Education: Psychological Corporation Entrance Examination.

Number of follow-up interviews required with program advisors as student progresses through program.

For all programs, frequent review and feedback. Small ratio of students to faculty indicated.

In Nurse Education, faculty are identified as facilitators of learning for each clinical course. By signed contractual agreement, student sees facilitator once a week to review progress. Not required for non-clinical courses.

In Allied Health, formal interview once per semester, but informal contact is daily.

Referral to Service:

Prior to enrollment when issue/concern is expressed by student in interview. Special Nursing Orientation services are explained by faculty with Nursing student present.

In Nursing, because of weekly reviews, problems are detected early. Facilitators support and advocate use of college services.

Recruitment:

- o Health Fairs at high schools and malls, on campus in cafeteria to recruit undecided students.
- o Mailings annual and to SAT examinees who indicate health program interest.
- o Telephone calls to health educators.
- o Informal contacts through clinical work assignments.
- o Posters in stores.
- o Course offered in Division of Continuing Education for one (1) evening - three (3) hours: Survey of Health Careers- Registration Fee of \$6.00.

Referrals of interviewees in Department to GED/College to CLEP.

Special Experience Cited:

- o Sensitivity to all students whether student starts with GED or high school diploma.
- o Custom designing of Nursing Program to provide opportunity for dyslexic and other students with problems to improve general academic skills prior to Health courses.
- o Advisement that students can enroll and take as long as need to complete program.
- o Help with long-range planning for all Health careers.
- o Contact and encouragement of those who stepped out and returned.

Success Reasons Cited:

- o Highly motivated. Once the adult student makes commitment, he/she follows through.
- o Development of self-esteem as result of self, successful student, College Faculty/Staff support.
- o Opportunities for a lot of individual attention with small numbers in program and ratio of students to Faculty.
- o NSCC helps with improvement of all skills: reading, outlining.
- o Personal frequent contact and interest with advisors seeing students in class.
- o Education is reality based with field work.
- o Continuous evaluation of strengths and weaknesses with feedback to students. Early identification of problems.

ACADEMIC CLUSTER: LIBERAL ARTS/GENERAL STUDIES/SPECIAL PROGRAM**PROGRAMS WITHIN CLUSTER**

Liberal Arts
 General Studies
 Technical Writing
 Motivation to Education
 English as a Second Language
 Honors Program

Program Coordinators for Motivation to Education, Honors Program, English as a Second Language.

Enrollment interview required for Honors Program, ESL and Motivation to Education Programs. Motivation has two interviews.

Member of department was not necessarily the academic advisor within years '85 and '87.

Prerequisite to program admission if GED recipient:

- o Academic coursework recommended prior to program admission. Placement Examination in Math and English. All students then take writing sample in Basic Communications and Composition I.
- o Motivation to Education has special week long orientation.

Tracking for Motivation and ESL students. Academic Advisor signs off on program once a semester. Faculty try to be involved with students in class.

All students attend orientation and find out about services in Day Division. Individual faculty make referrals during enrollment.

Recruitment:

- o Informal in neighborhood and through church.
- o Participation in College-wide efforts such as Massachusetts Division of Employment Security.
- o Motivation Faculty and Staff are on community and agency task forces. Also contact with former students who make referrals.

Success Reasons Cited:

- o Strong motivation from within.
- o Readiness for college and delight in care and attention received.
- o High commitment when a person defers education, makes a decision to re-enter education is viewed as critical.
- o The thirst for knowledge and excitement of awakening the mind is viewed as benefitting the self in a way that is different from practical and pragmatic.

ACADEMIC CLUSTER: OFFICE TECHNOLOGY PROGRAMS WITHIN CLUSTER

Executive Secretarial
Legal Secretarial
Medical Transcriptionist Certificate
Medical Secretarial
Office Assistant Certificate
Office Information Processing Option
Word Processing Assistant Certificate

No Program Coordinators
No enrollment interview required.

Around 80 percent of academic advisors were Department members within years '85 and '87. There are not enough faculty to advise all students in program.

Prerequisite to program admission if GED recipient:

- o academic coursework recommended prior to program admission.
- Typing ability at 30 wpm for required or preferred depending on program.

Follow-up interviews required with program advisors as student progresses through program: three times per semester with academic advisor when possible.

Referral to Services made when issues/concerns noted.
Faculty are diligent in making referrals and following up.

Recruitment:

- o NSCC instructors teach in six week Office Training Community Program - a special grant operated with funding from Employment Training Program.
- o Liaisons with special program for Displaced Homemakers - a community and College cooperative venture.

Special Experience Cited:

Faculty member taking student to AL-ANON and supporting. Faculty member working out pooled resources effort for baby-sitting with another Faculty member and students. Faculty take many caring actions with students.

Success Reasons Cited:

- o Students interested and dedicated to improving self.
- o Being more mature the student is willing to admit he/she does not know everything and will ask for help.
- o Analogy: the 18 year old is "the hare" and the mature student, "the tortoise" at the beginning of first semester, the "hare" takes off and by the end the "tortoise" is at least equal.
- o Faculty attentive and caring.

ACADEMIC CLUSTER: BUSINESS PROGRAMS WITHIN CLUSTER

Accounting
Aviation Science
Business Computer Programming
Finance/Banking
Insurance
Management
Marketing
Real Estate

No Program Coordinators, although Department specialists are identified.

No enrollment interview required.

80 percent of academic advisors were department members within years '85 and '87. There are not enough faculty to go around.

Prerequisite to program admission if GED recipient:

- o General college assessment/Orientation for Day students.

Regular advisement required per semester. No special departmental follow-up.

During advisement, students are oriented to services. Business Department is working to further integration of Business Tutorial Program with Academic Assistance Center (previously separate).

Recruitment efforts with high schools.

Referrals made to GED services and College's Admissions.

Special Experience Cited

Being sensitive when knowing student was from Motivation to Education Program.

Success Reasons Cited

- o Students feel this is a second chance, a gift.
- o Student who starts late with GED recognizes assets and limitations. He/she is not afraid to ask for help whereas some of the other students might be.

ACADEMIC CLUSTER: INDUSTRIAL TECHNOLOGY PROGRAMS WITHIN CLUSTER

Computer-Aided Design Certificate
Computer-Aided Design/Computer-Aided Manufacturing Option
Electro-Mechanical Technology
Electronic Technician Certificate
Fire Protection and Safety
Manufacturing Engineering Technology
Pre-Engineering
Quality Assurance

Program Coordinators for Electronic Technician Certificate, Fire Protection and Safety, and Pre-Engineering.

No enrollment interview required.

Academic advisor was not necessarily member of department within years '85 and '87. At one time, Faculty saw students at pre-enrollment. The students enrolled in courses and then an advisor within the Department was assigned whenever possible.

Prerequisite to program admission if GED recipient:

- o Academic coursework recommended prior to program admission.
- o Math through completion of high school in order to be prepared for Calculus I.
- o Awareness of purpose of program as preparation to be technician or assistance and to explore engineering. The student has decided to be an engineer, this is not the appropriate program.

Department Chairs and Faculty look after students in programs as closely as possible.

Referral to Services by Faculty/Department Chairs as need occurs.

Recruitment:

- o Informal with neighbors, friends, former student referrals.
- o Many of the instructors in local high schools and vocational technical schools have gone through the program (teachers of physics and chemistry as well as industrial technologies).
- o Professionals in business/industry make referrals.
- o Special program - two years at NSCC and two years at Lowell University.
- o Minority recruitment to high schools in minority areas.

Referrals to GED services and Admissions. Recommendations made to take additional courses at NSCC prior to enrollment at four year school to insure success.

Special Experience Cited:

- o A lot of students coming out of vocational technical schools feel they are "stupid." These students feel often academically abused. Department and Faculty members work to build self-esteem and change feelings of academic competence potential.
- o Family atmosphere in Department. Faculty are open with each other and with student which results in no fear of being open with students regarding progress. Students discussions can focus on specifics which need to change academically and attitudinally.

Success Reasons Cited:

- o Students feel at home - well received, not abused and encouraged.
- o Know need education to be successful.

F. STEP 5: REVIEW RESULTS OF TWO SURVEYS ALONG WITH GENERAL TRENDS.

1. **ACHIEVEMENTS OF 160 STUDENTS IN GENERAL SAMPLE AND 87 STUDENTS IN SURVEY SAMPLE: REVIEW OF CUMULATIVE GRADE POINT AVERAGES IN RELATION TO ACADEMIC PROGRAMS, DIVISION OF ENROLLMENT, AND ATTENDANCE PATTERNS.**

GED recipients are highly successful and are high achievers in college. Evidence: General trend analysis of cumulative grade point averages, academic cluster groupings, academic clusters; and analysis of survey sample cumulative grade point averages.

CUMULATIVE AVERAGES AND ACADEMIC PROGRAMS

GENERAL SAMPLE DATA ANALYSIS

Of the total group of 160 students in the general sample, 56 percent or 89 students earned a cumulative grade point average (CGPA) of 3.00 to 4.00, a B to A+; 38 percent or 60 students earned a CGPA of 2.00 to 2.99, a C to B-; and eight percent or 11 students earned a CGPA of 1.00 to 1.99, a D to C-.

There were 98 enrolled students in the academic cluster Group I: Human Services, Health, and Liberal Arts and Special Programs. Sixty-four percent or 63 students earned a 3.00 to 4.00; 30 percent or 29 students earned a 2.00 to 2.99; and six percent or six students, a 1.00 to 1.99.

The academic cluster Group II: Office Technology, Business, and Industrial Technology included 62 students. Forty-two percent or 26 students earned a 3.00 to 4.00; 48 percent or 30 students earned a 2.00 to 2.99; and ten percent or six students, a 1.00 to 1.99.

Chart I. A., General Trends by Academic Cluster/ Cumulative Grade Point Averages, indicates the number and percentage of students earning a 3.00 to 4.00, a 2.00 to 2.99, and a 1.00 to 1.99 within each cluster.

CHART I. A. GENERAL TRENDS BY ACADEMIC CLUSTER/CUMULATIVE
GRADE POINT AVERAGES (N=160)

Programs	3.00 - 4.00	2.00 - 2.99	1.00 - 1.99	# of Students
GROUP I				
Human Services	28/70%	11/28%	1/2%	40
Health	7/64%	4/36%	0/0%	11
Liberal Arts/ Special Programs	28/59%	14/30%	5/11%	47
	63/64%	29/30%	6/6%	98
GROUP II				
Office Technology	7/41%	7/41%	3/18%	17
Business	14/44%	15/47%	3/18%	32
Industrial Technology	5/38%	8/62%	0/0%	13
	26/42%	30/48%	6/10%	62
Totals	89/56%	59/37%	12/7%	160

SURVEY SAMPLE DATA ANALYSIS

Of the 87 students responding to the Survey Sample, 49 earned a 3.00 to 4.00 and 38, a 2.00 to 2.99. Of the 53 students in Group I: Human Services, Health, and Liberal Arts and Special Programs, 70 percent or 37 students earned a 3.00 to 4.00 and 30 percent or 16 students earned a 2.00 to 2.99.

Of the 34 respondents enrolled in Group II: Office Technology, Business, and Industrial Technology, 35 percent or 12 students earned a 3.00 to 4.00 and 65 percent or 22 students, a 2.00 to 2.99.

Chart I. B., Survey Sample Trends by Academic Clusters/Cumulative Grade Point Averages indicates the number and percentages of students earning a 3.00 to 4.00 and a 2.00 to 2.99 within each academic cluster.

CHART I. B. SURVEY SAMPLE TRENDS BY ACADEMIC CLUSTERS/CUMULATIVE GRADE POINT AVERAGES (N=87)

Programs	3.00 - 4.00	2.00 - 2.99	# of Students
GROUP I			
Human Services	22/88%	3/12%	25
Health	7/88%	1/12%	8
Liberal Arts and Special Programs	8/40%	12/60%	20
	37/70%	16/30%	53
GROUP II			
Office Technology	2/29%	5/71%	7
Business	8/35%	15/6%	23
Industrial Technology	2/50%	2/50%	4
	12/35%	22/65%	34
Totals	49/56%	38/44%	87

CUMULATIVE AVERAGES AND DIVISION OF ENROLLMENT

Whether the student enrolls in the Day Division only or attends both Days and Evenings does not influence cumulative grade point averages. Evidence: General and Survey Sample analysis of cumulative grade point averages in relation to College division of enrollment.

Academic performance of the 160 students in the general sample group was not influenced by Division of Enrollment. Thirty-nine percent or 63 students attended Days only, and 61 percent or 97 students attended both Day and Evening classes. The total cumulative grade point averages of those attending Days only was 2.95 and those attending Days and Evenings, 3.12. (See Chart II. A. which indicates the cumulative grade point averages of the 160 students in the General Sample, page 44.)

CHART II. A. GENERAL TREND INFORMATION: COMPARISON OF CUMULATIVE GRADE POINT AVERAGES PER DIVISION OF ENROLLMENT

	3.00 - 4.00	2.00 - 2.99	1.00 - 1.99	AVG CGPA	# of Students
Days Only	32/51%	26/41%	5/8%	2.95	63/39%
Days/ Eves.	57/59%	33/34%	7/7%	3.12	97/61%
Totals	89/56%	59/37%	12/7%	3.06	106

Next, I looked at the Student Survey Sample cumulative grade point averages in relation to full-time and part-time status, according to academic clusters. Of the 87 students, 63 percent or 55 students stated they attended primarily full-time and 37 percent or 32 students, part-time. Thus, there were more full-time students represented. (See Chart II. B., Student Survey Sample Information: Comparison of Cumulative Grade Point Averages Per Division of Enrollment, page 45.) I wondered if this would be a problem in the analysis or if it would distort results.

However, when I looked at those clusters in which a majority of the students attended full-time days, I found they did not necessarily have higher cumulative grade point averages. I found that only slightly over one-half of the Human Service students were full-time, and yet, nearly all achieved a 3.00 to 4.00. In the Liberal Arts and Special Programs as well as Business, 70 percent attended full-time, but over one-half earned the lower CGPA of 2.00 to 2.99.

CHART II. B. STUDENT SURVEY SAMPLE INFORMATION: COMPARISON OF
CUMULATIVE GRADE POINT AVERAGE PER DIVISION OF
ENROLLMENT

	3.00 - 4.00	2.00 - 2.99
GROUP I		
HUMAN SERVICES (25)	22	3
Full-time only - 14 (56% of 25)		
Part-time only - 10		
Full & Part-time - 1		
HEALTH (8)	7	1
Full-time only - 6 (75% of 8)		
Part-time only - 0		
Full & Part-time - 2		
LIBERAL ARTS AND SPECIAL PROGRAMS (20)	8	12
Full-time only - 14 (70% of 20)		
Part-time only - 0		
Full & Part-time - 6		
GROUP II		
OFFICE TECHNOLOGY (7)	2	5
Full-time only - 4 (57% of 7)		
Part-time only - 0		
Full & Part-time - 3		
BUSINESS (23)	8	15
Full-time only - 16 (70% of 23)		
Part-time only - 6		
Full & Part-time - 1		
INDUSTRIAL TECHNOLOGY (4)	2	2
Full-time only - 1 (25% of 4)		
Part-time only - 2		
Full & Part-time - 1		
	49/56%	38/44%

I further verified this fact by looking at student statements pertaining to the number of classes attended during most semesters. Most students stated they took two or more courses at a time. Of the 68 responses, 62 percent or 42 students were enrolled in four to five courses for the most part and 38 percent or 26 students were enrolled in one to three courses. Nineteen did not answer the question. This information closely

aligns with the previous statements regarding full-time/part-time status. (See Chart II. C., Number of Courses Taken During a Semester.)

CHART II. C. NUMBER OF COURSES TAKEN DURING A SEMESTER (N = 68)

	NUMBER OF COURSES			
	1 - 2	2 - 3	4+	DID NOT ANSWER
<u>GROUP I</u>				
HUMAN SERVICES	3	8	12	2
HEALTH	0	2	3	3
LIBERAL ARTS AND SPEC.PROG.	3	3	10	4
<u>GROUP II</u>				
OFFICE TECHNOLOGY	0	0	4	3
BUSINESS	0	5	12	6
INDUSTRIAL TECHNOLOGY	0	2	1	1
	6	20	42	19

CUMULATIVE AVERAGES AND ATTENDANCE PATTERNS

Whether a student attends consecutive semesters or takes one or two semesters off is irrelevant to academic performance. Evidence: General Sample analysis of attendance pattern.

General trend analysis revealed that academic performance was not seriously influenced by attendance pattern. Slightly over one-half of the students (51 percent or 82 students) attended consecutive Fall and Spring semesters. Nearly one-half (47 percent or 75 students) followed a mixed attendance pattern: e.g., attending one semester, skipping the next, and coming back a third or skipping two in a row. (Chart III. A., page 47, General Trends of Academic Performance by Attendance Pattern indicates whether a student attended consecutive semesters or skipped a semester or two had little bearing on performance in College.)

CHART III. A. GENERAL SAMPLE TRENDS OF ACADEMIC PERFORMANCE BY ATTENDANCE PATTERN (N = 160)

	3.00 to 4.00	2.00 to 2.99	1.00 to 1.99	Less than 1.00	Total	Avg CGPA
Continuous	45/55%	31/38%	6/7%	0/0%	82	3.08
Mixed	42/56%	27/36%	6/8%	0/0%	75	3.04
Sporadic	2/67%	1/33%	0/0%	0/0%	3	3.04
1 semester	0/0%	0/0%	0/0%	0/0%	0	0.00
	89/56%	59/37%	12/8%	0/0%	160	3.06

Chart III. B. indicates the attendance pattern of each individual program with the percentage of students following the particular pattern. The interrelationship between patterns shows a consistent nearly 40 - 60 ratio. For example, in Human Services, Office Technology and Business, approximately 60 percent attended full-time and in Health, Liberal Arts and Special Programs, and Industrial Technology, slightly over 60 percent attended full-time.

CHART III. B. GENERAL SAMPLE TREND ANALYSIS/ATTENDANCE PATTERN (N = 160)

	Continuous	Mixed	Sporadic	Patterns
<u>GROUP I</u>				
HEALTH	4/36%	7/64%	0	11
HUMAN SERVICES	23/58%	17/42%	0	40
LIBERAL ARTS AND SPECIAL PROGRAMS	20/43%	25/53%	2/4%	47
<u>GROUP II</u>				
OFFICE TECHNOLOGY	10/59%	7/41%	0	17
BUSINESS	20/63%	11/34%	1/3%	32
INDUSTRIAL TECHNOLOGY	5/38%	8/62%	0	13

Using this data, I compared the academic clusters by groupings according to cumulative grade point averages. In Group I: Human Services, Health, and Liberal Arts and Special Programs, 48 percent or 47 students attended continuously. In Group II: Office Technology, Business, and Industrial Technology, 56 percent or 35 students attended continuously.

In Group I, 50 percent attended according to a mixed pattern and in Group II, 42 percent or 26 students attended according to a mixed pattern. A total of only three students in both groups attended sporadically. (See Chart III. C., Analysis of Attendance Patterns.)

CHART III. C. ANALYSIS OF ATTENDANCE PATTERNS

	Continuous	Mixed	Sporadic
<u>GROUP I</u>			
(N=98)			
Human Services, Health, Liberal Arts and Special Programs	47/48%	49/50%	2/2%
<u>GROUP II</u>			
(N = 62)			
Office Technology, Business, Industrial Technology	35/56%	26/42%	1/2%

**SIGNIFICANT FACTORS INFLUENCING SUCCESS OF GED
RECIPIENTS IN HIGHER EDUCATION.**

1. Self-motivation is a key factor in college success for students starting with a GED. The majority of successful students are aware of college opportunities, having reviewed brochures/catalogues and made a decision to enroll prior to obtaining a GED.
Evidence: Student Survey responses supported by Faculty Survey responses.

The responses to four questions on the Student Survey showed that nearly all students in the survey reviewed college information prior to enrollment and over one-third made the decision to enroll prior to obtaining a GED. The responses to a fifth question on the

student survey showed these students were enthusiastic about helping others. Faculty responses to the Faculty Survey verified internal motivation as critical.

First, I addressed the reason why they took the step toward earning a GED and provided a choice of six options. Seventy-four students gave 76 responses. Thirty-seven percent or 28 students indicated the reason they obtained a GED was to "further their education/enroll in college." Of the other five choices, selections were as follows: to finish high school - 12; encouraged by friends and family - four; improve chances for work - 14; self-improvement - 16; and requirement for military service - two. Sixteen individuals did not answer the question.

Second, I asked if they had decided to attend college before or after they had completed their GED. Eighty-seven students responded. Forty-eight percent or 42 students stated they decided to enroll in college before taking the GED. Thirty-seven percent or 32 students decided after completing the GED tests. Fifteen percent or 13 students did not answer the question.

Third, I asked them to select the major reason they decided to attend college and listed seven options. Eighty-seven individuals gave a total of 152 responses. Of the 152 responses, 58 percent or 51 of the 87 students indicated they decided to attend college to obtain an Associate Degree, and ten percent or nine of the 87 students to take courses to transfer to another college. The responses to the other options were to obtain employment - 14 students; to be eligible for promotion - five students; to improve chances for a better job - 36 students; to learn specific skills - 30 students; other reasons - five percent or seven students. (See Chart IV. Comparison Analysis: Reasons for Enrollment in College, page 50.)

CHART IV. COMPARISON ANALYSIS: REASONS FOR ENROLLMENT IN COLLEGE
(Student: N=87; Response: N=152)

	a	b	c	d	e	f	g	Responses
HUMAN SERVICES	11	1	3	2	8	7	1	33
HEALTH	6	0	3	0	4	6	0	19
LIBERAL ARTS & SPECIAL PROGRAMS	13	5	2	3	8	6	5	42
OFFICE								
TECHNOLOGY	4	0	1	0	5	2	0	12
BUSINESS	13	3	3	0	9	8	1	37
INDUSTRIAL TECHNOLOGY	4	0	2	0	2	1	0	9
TOTALS	51	9	14	5	36	30	7	152

CODE:

- a To obtain an Associate Degree or Certificate in a Career or Transfer Program.
- b To take courses necessary for transferring to another college.
- c To obtain employment
- d To be eligible for promotion at your company.
- e To improve your chances for a better job.
- f To learn some specific skills for self-improvement.
- g Other

Fourth, students were asked to identify the source of information about North Shore Community College (NSCC) that they looked at/heard about prior to enrollment. Ninety-three percent or 81 students in the survey gave 152 responses, all indicating that they had reviewed college information prior to enrollment: 51 received information from friends/family; 36 received the college catalogue; 29 individuals identified that they had looked at a brochure; 18 individuals received a letter from the College; nine individuals received information through a newspaper ad; eight individuals stated they had received information through a newspaper article; and one received information via Cable TV. Six students did not answer the question.

Fifth, most of the successful students would like to help other GED recipients enroll and stay in College, and would be willing to commit time to facilitating development of a program. I asked if a special program/service should be created to assist individuals who begin NSCC by taking GED Tests. Seventy-seven percent or 67 students stated "yes;" 16 percent or 14 students stated "no;" and seven percent or six students did not answer.

I asked the students to make suggestions for such special programs. Forty-nine percent or 43 students responded with suggestions and 51 percent or 44 students did not answer the question. The majority answered that a GED Alumni Association would be helpful. Other suggestions were to link GED recipients with individuals already enrolled in College; to develop a program linked with the Motivation to Education Program; and to develop information packets for GED students on all the services provided by the College.

I asked if the student was willing to be involved if a program or service was created. Forty-seven percent or 41 students stated "yes;" eight percent or seven students stated "maybe;" 34 percent or 29 students stated "no;" and 11 percent or ten students did not answer.

Last, I asked for any additional comments they might like to make. Forty-nine percent or 43 students commented and 51 percent or 44 students did not answer. The majority of the answers referred to the encouragement the students received from NSCC Staff that helped them to succeed at College, raised their self-esteem, improved their life, and made them a professional. Several students stated that NSCC was an institution with a "family-like" bond.

Sixth, on the Faculty Survey, Faculty cited inner motivation as the highest factor and made strong statements regarding this fact.

Sample Statements

"These students know they need education to be successful."

"The student is interested in, and dedicated to improving self."

"The GEDer demonstrates a higher motivation than the general population at NSCC."

2. The referral/support of family/friends AND College staff is significant in maximizing GED completion, enrollment, and continued attendance in college. Evidence: Survey Sample responses to three questions - two questions emphasizing referral/encouragement in general, showing the referral and support of family and friends as significant; and one addressing College Faculty and Staff encouragement, showing this as equally significant.

First, on the student survey, I asked how they heard about and/or who referred them to the GED services at NSCC. Fifty-nine of the 87 students responded to the question. Forty-seven percent or 28 students indicated that friends and family referred them to GED Services.

The rest indicated welfare agencies - four; newspaper - one; high schools - six; NSCC staff - three; self - three; Operation Bootstrap - five; former students - two; Lynn Opportunity Center - one; Salem Area Employment and Training/Northshore Employment Training - three; Educational Opportunity Center - one; Massachusetts Rehabilitation - one; and military - one.

Second, I asked who encouraged enrollment in studies at NSCC and/or who encouraged continuation of studies even when the possibility of not achieving the educational goal was apparent. There were 131 responses by 84 individuals. Three individuals did not answer the question. Thirty percent or 39 students indicated family and 30 percent or 39 students, friends. The rest indicated: individuals at work - 13; individuals in community agency - 12; self - 20; and NSCC staff - eight.

Third, when I asked for the names of college staff who were supportive, 181 responses were given by 74 percent or 64 students of the 87 survey participants. Included were Faculty members, Program Coordinators, Financial Aid Officers, Counselors, Tutors, Staff at CAS and Admissions Offices. The responses included Faculty Members/Coordinators/Advisors, the Financial Aid Officer, Counselors, Tutors at the Academic Assistance Center, Staff at the Center for Alternative Studies, Admissions Counselors, Receptionists, and Administrators.

3. **Consistent contact with one Program Coordinator and/or Advisor is a major factor in maximizing opportunity for success.** Evidence: Analysis of Faculty Survey data in relation to cumulative grade point averages.

I found the grouping of academic clusters in which the students had higher CGPA's were, indeed, the areas which had Program Coordinators and/or all students had Academic Advisors within their program of studies.

I arrived at this conclusion through an analysis of the Faculty Survey responses to two questions: (a) whether or not the programs within the Department had a program Coordinator and (b) whether or not the academic advisor was a member of the Department.

Within the Human Services, Health, Liberal Arts and Special Programs group there were 25 programs with 12 Program Coordinators. All students had an Academic Advisor within their program of study. Nearly 19 percent or 30 students of our general sample of 160 had enrolled in a program after completing the Motivation Program. Within the Office Technology, Business, and Industrial Technology group there were 24 Programs. Two had Program Coordinators and 80-90 percent of the students had Academic Advisors within their program of study. (See Chart V. A., Academic Cluster Profiles: Program Coordinator/ Advisor Profiles.)

CHART V. A. ACADEMIC CLUSTER PROFILES: PROGRAM COORDINATOR/ADVISOR PROFILES

Program Coordinators	No. of Programs	No. of Coordinators	Academic Advisor In Department
<u>GROUP I</u>			
Human Services	13	3	13
Health	6	6	6
Liberal Arts and Special Programs/ General Studies/ Motivation	6	3*	6
<u>GROUP II</u>			
Office Technology	7	0	80 - 90%
Business	9	1	80 - 90%
Industrial Technology	8	1	90-100% after enrollment
* Honors Program, English As a Second Language (ESL) Program, Motivation to Education Program			

I then looked at the number of students per Faculty Member within academic cluster groupings in the Day Division of the College. For those with higher CGPAs, the average number was 19 students per Faculty Member. For those with lower CGPAs, the average number was 35 students per Faculty Member.

Within Group I: Human Services, Health and Liberal Arts and Special Programs, 100 percent of the students had academic advisors within their program. I averaged

enrollment figures for the Fall of 85 and Spring 86, using the average number of students in a given semester totaled 2030. According to the College's Dean of Academic Affairs records, there were 105 Faculty Members employed full-time. The average ratio of students to faculty was 19 students per faculty member. The breakdown is Human Services - 38; Health - 11; Liberal Arts and Special Programs - 19.

Within Group II: Office Technology, Business and Industrial Technology Programs, Faculty stated 80 - 90 percent of the students had Academic Advisors within departments. The total number of students enrolled in a semester was 1366 with 39 faculty members. The average number of students per faculty member is 35. The breakdown is Office Technology - 50, Business - 38, Industrial Technology - 19. (See Chart V. B., Academic Cluster Descriptors: Ratio of Total Number of Enrolled Students to Faculty Members.)

CHART V. B. ACADEMIC CLUSTER DESCRIPTORS: RATION OF TOTAL NUMBER OF ENROLLED STUDENTS PER FACULTY MEMBERS

	Average No. of Students Enrolled in Fall 85/86 Semesters	Faculty in Programs	Ratio Students/ Faculty
GROUP I			
HUMAN SERVICES	415	11	38:1
HEALTH	268	24	11:1
LIBERAL ARTS AND SPECIAL PROGRAMS	1347	70	19:1
	2030	105	19:1
GROUP II			
OFFICE TECHNOLOGY	304	8	38:1
BUSINESS	753	15	50:1
INDUSTRIAL TECHNOLOGY	309	16	19:1
	1366	39	35:1
TOTAL	3396	144	24:1

Finally, I explored the formality of contact through questions asking whether or not an interview was required for enrollment and the type of follow-up interviews with either the Program Coordinator or advisor. Chart VI., Type of Contact with Program Coordinator/Academic Advisor shows that in the areas of Human Services, Health, and Liberal Arts and Special programs, an enrollment interview was required in most cases and contact of a formal nature continued throughout the student's program.

CHART VI. TYPE OF CONTACT WITH PROGRAM COORDINATOR/ACADEMIC ADVISOR PROGRAM ENROLLMENT/COMPLETION

Program	Enrollment Interview	Advisor/Coordinator
GROUP I		
HUMAN SERVICES	Yes	Program Coordinator has 2-6 appointments with student per semester.
HEALTH	Yes for Allied Health	Program Coordinator - formal interview once a semester; informal contract daily.
	No for Nurse Education	Weekly review by faculty identified as facilitators for clinical course in Nursing.
LIBERAL ARTS AND SPECIAL PROGRAMS	Yes for Honors.	Academic Advisor signs off on Liberal Arts students once a semester.
	Yes for Motivation to Education, 2 interviews; ESL.	Regular follow-up for all students in Motivation and ESL to track in accordance with grant procedures.

CHART VI. TYPE OF CONTACT WITH PROGRAM COORDINATOR/ACADEMIC ADVISOR PROGRAM ENROLLMENT/COMPLETION (Continued)

Program	Enrollment Interview	Advisor/Coordinator
GROUP II		
OFFICE		
TECHNOLOGY	No	Academic Advisor follows-up three times per semester when possible.
BUSINESS	No	Academic Advisor participation regular advisement at beginning of semester. Specialty areas have individual named to help students on request.
INDUSTRIAL TECHNOLOGY	No	Department Chair and Faculty look after students in programs as closely as possible.

In Office Technology, Business, and Industrial Technology, no enrollment interviews were required and due to the large number of students, contact seemed to be based on the availability of Academic Advisors.

Through the Faculty Survey, I discovered that the Motivation to Education Program tracked all students who entered this program from entry through graduation. This means follow-up contact was on a consistent basis and by the same counselor/advisor. Since many students starting with a GED enter that Program, I asked the Program Coordinator to review the list of 160 students in the General Survey. I found that 19 percent or 30 students were initially enrolled in Motivation. These students went on to enroll in academic clusters as follows: Human Services - ten; Health - one; Liberal Arts/General Studies - 11; Office Technology - three; Business - five; and Industrial Technology - 0;

4. Successful students use College services and are satisfied with services received.

Evidence: Survey responses naming support personnel and use of services with rating of satisfactory/unsatisfactory; comparison of service use between academic cluster groupings with higher and lower CGPAs.

Two questions on the survey related to services. First, as reported under item 6., the students were asked to identify support service either by name or job title. Sixty-four students responded naming 181 individuals.

Second, major support services were listed and students were asked to identify services used and to indicate their satisfaction/dissatisfaction. Eighty-five individuals completed/partially completed this section. Two individuals did not answer.

From 55 to 69 percent of the responding 85 students used five of the major sources of the College and rated them satisfactorily: Academic Advisors - 69 percent; Academic Assistance Center - 56 percent; Admissions - 59 percent; Center for Alternative Studies - 56 percent; and Counselors - 55 percent. Nearly one-half or 48 percent of the students used the Learning Resource Center. Forty-six percent used Financial Aid and 32 percent, Student Activities. (See listing on this page and Chart VII, Student Indication of Use and Satisfaction with College Services, page 59.)

Academic Advisor

Of the 85 respondents, 69 percent or 59 students were satisfied; eight percent or seven students were dissatisfied. Thirty-three percent or 28 students did not select this answer.

Academic Assistance Center

Of the 85 respondents, 56 percent or 48 students were satisfied; five percent or four students were dissatisfied. Thirty-nine percent or 33 students did not select this answer.

Administrative Offices

Of the 85 respondents, 48 percent or 41 students were satisfied; ten percent or eight students were dissatisfied. Forty-two percent or 36 students did not select this answer.

Admissions Orientation/Assessment

Of the 85 respondents, 59 percent or 50 students were satisfied; ten percent or nine students were dissatisfied. Thirty-one percent or 26 students did not select this answer.

Center for Alternative Studies

Of the 85 respondents, 56 percent or 48 students were satisfied; two percent or two students were dissatisfied. Forty-two percent or 36 students did not select this answer.

Counseling Center

Of the 85 respondents, 55 percent or 47 students were satisfied; four percent or three students were dissatisfied. Forty-one percent or 35 students did not select this answer.

Financial Aid

Of the 85 respondents, 46 percent or 39 students were satisfied; 27 percent or 23 students were dissatisfied. Twenty-seven percent or 23 students did not select this answer.

Learning Resource Center

Of the 85 respondents, 48 percent or 41 students were satisfied. Fifty-two percent or 44 students did not select this answer.

Receptionist/Office Staff

Of the 85 respondents, 64 percent or 54 students were satisfied; seven percent or six students were dissatisfied. Twenty-nine percent or 25 students did not select this answer.

Student Activities

Of the 85 respondents, 32 percent or 27 students were satisfied; 68 percent or 58 students did not select this answer.

CHART VII. STUDENT INDICATION OF USE AND SATISFACTION WITH COLLEGE SERVICES (N = 85)

	ACAD ADV	ACAD ASST	ADMIN	ASMSS	CAS	COUNS	FA	LRC	RECPT	SA
GROUP I (N=52)										
HUMAN SERVICES, LIBERAL ARTS & SPECIAL PROGRAMS, HEALTH	39	27	25	33	29	33	21	27	33	20
	75%	52%	48%	63%	56%	63%	40%	52%	63%	38%
GROUP II (N=33)										
OFFICE TECHNOLOGY BUSINESS, INDUSTRIAL TECHNOLOGY	20	21	16	17	19	14	18	14	21	7
	60%	64%	48%	52%	58%	42%	55%	42%	64%	21%
TOTAL	59	48	41	50	48	47	39	41	54	27
	69%	56%	48%	59%	56%	55%	46%	48%	64%	32%

Code

ACAD ADV = Academic Advisors
 ACAD ASST = Academic Assistance
 ADMIN = Administration
 ASMSS = Admissions
 CAS = Center for Alternative Studies
 COUNS = Counseling
 FA = Financial Aid
 LRC = Learning Resource Center (Library)
 RECPT = Receptionist/Office Staff
 SA = Student Activities

Used with Satisfactory Rating was significantly higher for the areas of Human Services, Health, and Liberal Arts/General Studies/Special Programs in Academic Advising at 75 percent as compared to 60 percent in Office Technology, Business, and Industrial Technology; Counseling at 63 percent as compared to 42 percent; and Student Activities at 38 percent compared to 21 percent. The only service which was used and rated satisfactory more frequently for those with lower cumulative grade point averages was Academic Assistance with use of 64 percent compared to 52 percent.

We then compared the use of service with satisfactory ratings of the academic groupings. (See Chart VIII. Comparison Analysis of Use of Major Services by Program.)

CHART VIII. COMPARISON ANALYSIS OF USE OF MAJOR SERVICES BY PROGRAM

PROGRAM	ACAD ADV	ACAD ASST	ADMS	CAS	COUNS	FA	SA	LRC
GROUP I								
(N=52)								
HUMAN SERVICES	19	11	15	11	14	9	10	10
LIBERAL ARTS AND SPECIAL PROGRAMS	16	11	14	12	13	10	8	13
HEALTH	6	5	4	6	6	2	2	4
	39	27	33	29	33	21	20	27
	75%	52%	63%	56%	63%	40%	38%	52%
GROUP II								
(N = 33)								
OFFICE TECH-NOLOGY	5	5	5	4	4	4	2	3
BUSINESS	13	13	9	12	9	13	5	10
INDUSTRIAL TECH-NOLOGY	2	3	3	3	1	1	0	1
	20	21	17	19	14	18	7	14
	60%	64%	52%	58%	42%	55%	21%	42%
TOTAL	59	48	50	48	47	39	27	41
	69%	56%	59%	56%	55%	46%	32%	48%

Finally, I addressed how any of the services could be improved. Sixty-seven percent or 58 students responded and 33 percent or 29 students did not answer the question. The majority of the students responded that all service offices should be open more and be better staffed, and that there should be advertising of the services to let students know where and when they can get help.

The students were asked to state reasons for not using the services. Thirty-eight percent or 33 students responded they did not need the services and 62 percent or 54 students did not answer the question.

**OTHER RELEVANT FACTORS TO BE TAKEN INTO
CONSIDERATION WHEN SETTING UP PROGRAMS TO FACILITATE
SUCCESS FOR ALL GED RECIPIENTS IN HIGHER EDUCATION**

1. **Attendance in a formal GED preparation program and formal grade level completion above grade 10 facilitates success in higher education.**
Evidence: Survey data related to cumulative grade point averages.

I asked two questions: whether or not they had enrolled in a preparation program and grade level of formal school completed.

When I asked if they had enrolled in a GED Preparation Program prior to taking the GED tests and to identify the program, 87 students responded. Forty-eight percent or 42 students took a formal preparation program; 52 percent or 45 students did not. Seventy percent or 61 students identified the programs and 30 percent or 26 students did not.

Eighty-four students responded to the grade level completed question. I found that 36 percent or 31 students completed the 11th grade; 36 percent or 31 students completed the 10th; 20 percent or 18 students, the 9th; six percent or five students, the 8th; and two percent or two students, the 6th grade.

First, I found that while only one-half of the students completed a GED Preparation Program, of the 42 students, 62 percent or 26 students earned a 3.00 to 4.00 and 38 percent or 16 students earned a 2.00 to 2.99.

GED Preparation Programs were identified as follows: Operation Bootstrap; North Shore Community College; Preparation Center in Peabody; Community Education Training ACT GED classes; Adult Basic Education Programs; Self-Help, Inc., Brockton; United States Armed Forces GED Program; Educational Opportunity Center; Beverly High School-Night School Adult Program.

Second, I found that 67 percent or 33 students had completed grade 10 or above. Thirty-three percent or 16 students had completed grades 6 - 9.

I analysed the data by looking at the level of participation in preparation programs, emphasizing cumulative averages. Of the total group of 49 students

who earned a 3.00 to 4.00 in any program, 53 percent or 26 students had completed a preparation program. In the Human Services, Health and Liberal Arts and Special Programs, 51 percent or 19 students who earned a 3.00 to 4.00 completed a preparation program; in the Office Technology, Business, and Industrial Technology, 58 percent or seven students had completed a preparation program. (See Chart IX. A., Comparison Analysis: Preparation Program Completed in Relation to Cumulative Grade Point Average.)

CHART IX. A. PREPARATION PROGRAM COMPLETED IN RELATION TO CUMULATIVE GRADE POINT AVERAGE (N = 87)

	3.00 - 4.00		2.00 - 2.99		TOTAL
	YES	NO	YES	NO	ENROLLMENT
GROUP I					
HUMAN SERVICES	15	8	1	1	25
HEALTH	1	4	1	2	8
LIBERAL ARTS AND SPEC.PROG.	3	6	2	9	20
	19	18	4	12	53
GROUP II					
OFFICE TECHNOLOGY	1	1	5	0	7
BUSINESS	5	3	7	8	23
INDUSTRIAL TECHNOLOGY	1	1	0	2	4
	7	5	12	10	34
TOTALS	26/30%	23/26%	16/19%	22/25%	87

Since completion of a grade at over 10 had a more significant impact than preparation program participation when analyzed by group, I then had to look at the grade level of those who took a preparation program. Of the 26 students who earned a 3.00 to 4.00, 65 percent or 17 students had completed grade 10 or above and 35 percent or nine students had not. Ten students had completed

grade 11; seven, grade 10; six had completed grade 9; two, grade 8; and one student, grade 6.

In order to determine whether grade level made a difference, I looked at students with a 3.00 to 4.00 and 2.00 to 2.99 across all programs to review what grade level they had completed.

First, I looked at the grade levels of 37 students who earned a 3.00 to 4.00 in Human Services, Health, and Liberal Arts and Special Programs and the 12 students earning a 3.00 to 4.00 in Office Technology, Business, and Industrial Technology. I found that whether they completed grade 10 or 11 did not seem to matter as much as the fact they did complete grade 10 or above.

Of the 37 students with 3.0 to 4.0 enrolled in the Human Services, Health and Liberal Arts and Special Programs, 35 percent or 13 students had completed grade 11 and another 30 percent or 11 students had completed grade 10. This means a total of 65 percent completed above grade 10.

Of the 12 enrolled in Office Technology, Business, and Industrial Technology, 33 percent or four students had completed grade 11 and 42 percent or five students had completed grade 10. This means 75 percent completed above grade 10. (See Chart IX. B. Grade Level Completed in Relation to Cumulative Grade Point Average, page 64.)

CHART IX. B. GRADE LEVEL COMPLETED IN RELATION TO CUMULATIVE GRADE POINT AVERAGE

PROGRAM	3.00 - 4.00					2.00 - 2.99					ENROLLED
	11	10	9	8	6	11	10	9	8	6	
GROUP I (N = 53)											
HUMAN SERVICES	5	9	7	2	0	0	0	2	0	0	25
HEALTH	2	0	3	0	0	1	2	0	0	0	8
LIBERAL ARTS AND SPECIAL PROGRAMS	6	2	1	0	0	7	2	1	0	1	20
	13	11	11	2	0	8	4	3	0	1	53
GROUP II (N = 34)											
BUSINESS	3	2	2	1	0	4	7	2	2	0	23
OFFICE TECHNOLOGY	0	2	0	0	0	0	5	0	0	0	7
INDUSTRIAL TECHNOLOGY	1	1	0	0	0	1	1	0	0	0	4
	4	5	2	1	0	5	13	2	2	0	34
Total	17	16	13	2	1	13	17	5	2	1	87

Preparation program participation and grade level completion above grade 10 seemed to be the ideal background as a predictor of success. However, completion of a GED preparation program enhanced the opportunity to earn a higher CGPA for all students. In all programs, those students who completed a preparation program and had earned a 3.00 or above, seven had completed grade 9 of formal education; two, grade 8; and one, grade 6. Of those earning a 2.00 to 2.99, two had completed grade 9 and one, grade 8. (See Chart IX. C., Comparison Preparation Program Participants, Grade Level Left School and Cumulative Grade Point Averages, page 65.)

CHART IX. C. COMPARISON PREPARATION PROGRAM PARTICIPANTS, GRADE LEVEL LEFT SCHOOL AND CUMULATIVE GRADE POINT AVERAGES (N = 42)

	3.00 - 4.00						2.00 - 2.99					
	11	10	9	8	7	6	11	10	9	8	7	6
GROUP I (N = 23)												
HUMAN SERVICES	5	4	4	2	0	0	0	0	1	0	0	0
HEALTH	0	0	1	0	0	0	1	0	0	0	0	0
LIBERAL ARTS AND SPECIAL PROGRAMS	3	0	0	0	0	0	0	2	0	0	0	0
	8	4	5	2	0	0	1	2	1	0	0	0
GROUP II (N = 19)												
OFFICE TECHNOLOGY	0	2	0	0	0	0	0	5	0	0	0	0
BUSINESS	2	1	1	0	0	1	1	4	1	0	0	0
INDUSTRIAL TECHNOLOGY	0	1	0	0	0	0	0	0	0	0	0	0
	2	4	1	0	0	1	1	9	1	0	0	0
TOTALS	10	8	6	2	0	1	2	11	2	0	0	0

2. Age of completing GED and age of GED student enrollment in college are not significant factors in determining success. Evidence: Analysis of Survey Sample age data.

Eighty-one students responded to the two age questions: the age they completed a GED and the age they enrolled in college.

First, the data was reviewed to determine the general profile of the successful GED student. This review showed that the successful GED student was most likely older when enrolling in College.

The average age of 81 students for completing their GED was 25.6. The GED completion mode of this total group

was 16-20; the median, 21-25. The average age of enrollment in College was 29.1. There were three modes for college enrollment age: 16-20, 21-25, and 26-30 and a median of 26-30. (See line one of Chart X. A. 1., Age of Completion of GED and Age of Enrollment at NSCC.)

CHART X. A. 1. COMPARISON ANALYSIS: AGE OF COMPLETION OF GED AND AGE OF ENROLLMENT AT NSCC (N = 81)

(Age ranges according to national statistical groupings of the American Council on Education)

	16-20	21-25	26-30	31-35	36-40	41-50	51-60+	
GED	29	9	12	5	7	7	2	MODE 16-20
								MEDIAN 21-25
COLLEGE	15	15	15	13	9	10	4	
								3 MODES:
								16-20
								21-25
								26-30
								MEDIAN 26-30

Second, I looked at each of the Academic Clusters and clusters groupings and found that in Human Services, Health, Liberal Arts and Special Programs, the profile of the students showed that when they enrolled in College they were only slightly older than those in the Office Technology, Business and Industrial Technology group. Reviewing Chart X. A. 2., Comparison Analysis: Age of Completion of GED and Age of Enrollment at NSCC by Academic Cluster Groups on page 66 reveals that while the completion of the GED mode is the same for both groups, the median for GED completion and the mode for College enrollment show that the students in Human Services, Health, and Liberal Arts and Special programs were slightly older.

CHART X. A. 2. COMPARISON ANALYSIS: AGE OF COMPLETION OF GED AND AGE OF ENROLLMENT AT NSCC BY ACADEMIC CLUSTER GROUPS

(N = 48)		GED							
(N = 48)		COLLEGE							
	16-20	21-25	26-30	31-35	36-40	41-50	51-60+		
GROUP I									
HUMAN									
SERV.,	17	11	5	5	3	6	1	MODE 16-20	
HEALTH,								MEDIAN 26-30	
LIBERAL									
ARTS/								MODE 26-30	
SPEC.	9	7	10	6	5	9	2	MEDIAN 26-30	
PRMS.									
GROUP II									
(N = 33)		GED							
(N = 33)		COLLEGE							
	16-20	21-25	26-30	31-35	36-40	41-50	51-60+		
GROUP II									
OFFICE									
TECH,	12	8	7	0	4	1	1	MODE 16-20	
BUSINESS,								MEDIAN 21-25	
IND.TECH.									
	6	8	5	7	4	1	2	MODE 21-25	
								MEDIAN 26-30	

Third, I looked at the amount of time which passed between completion of the GED and enrollment in College and found that it is irrelevant in predicting success. While many students completed the GED and enrolled in College in the same year, the range of the wait was from one to over ten years. When I looked at the group of programs in which students achieved higher CGPAs in comparison to the group who achieved lower CGPAs, I found the profile for the groups were similar.

In the Human Services, Health, and Liberal Arts and Special Program area, 33 percent or 16 students of the 48 enrolled in the same year they completed the GED. In the Office Technology, Business and Industrial Technology areas, 33 percent or 11 students or the 33 enrolled in the same year; 17 percent or eight students of the 48 waited one year in the former and 18 percent or six students or the 33 the latter; and in the over ten year wait, 19 percent in the former and 15 percent, the latter. (See Chart X. B. 1., Comparison of the Difference in the Number of Years Between Completion of GED and College Enrollment by Academic Clusters, page 68.)

CHART X. B. 1. COMPARISON OF THE DIFFERENCE IN THE NUMBER OF YEARS BETWEEN COMPLETION OF GED AND COLLEGE ENROLLMENT BY ACADEMIC CLUSTERS (N = 81)

	Same	-1	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10
GROUP I (N=48)												
HUMAN												
SERVS.												
HEALTH												
LIBERAL												
ARTS												
SPEC												
PRGRMS	16	1	8	2	0	1	4	2	2	2	1	9
GROUP II (N=33)												
OFFICE												
TECHN.												
BUSNSS.												
INDUST.												
TECH.	11	1	6	3	0	2	2	1	1	1	0	5
	27	2	14	5	0	3	6	3	3	3	1	14

Finally, I looked at the age differential of each individual program and found little difference in profile. (See Chart X. B. 2., Age Differential Between GED Completion and College Enrollment by Academic Clusters.)

CHART X. B. 2. AGE DIFFERENTIAL BETWEEN GED COMPLETION AND COLLEGE ENROLLMENT BY ACADEMIC CLUSTERS

HUMAN SERVICES										
(N=22)										
	16-20	21-25	26-30	31-35	36-40	41-50	51-60+			
Age took GED	5	3	2	4	3	4	1			
Age began College	2	1	4	2	4	7	2			
Difference between year completed GED and enrolled NSCC										
Same year	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10
6	2		1	4	1	1	2		5	

HEALTH

(N=8)

	16-20	21-25	26-30	31-35	36-40	41-50	51-60+
Age took GED	3	2	2	1			
Age began College	3	1	2	1	1		

Difference between year completed GED and enrolled NSCC

Same year	+1	+2	+18
4	2	1	1

LIBERAL ARTS AND SPECIAL PROGRAMS (N=18)

	16-20	21-25	26-30	31-35	36-40	41-50	51-60+
Age took GED	9	6	1			2	
Age began College	4	5	4	3		2	

Difference between year completed GED and enrolled NSCC

Same year	-1	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10
6	1	4	1				1	1		1	3

OFFICE TECHNOLOGY (N=6)

	16-20	21-25	26-30	31-35	36-40	41-50	51-60+
Age took GED	3	3					
Age began College	2	3					

Difference between year completed GED and enrolled NSCC

Same year	+1	+2	+3	+4	+14
2	2			1	1

BUSINESS (N=23)

	16-20	21-25	26-30	31-35	36-40	41-50	51-60+	
Age took GED	9	3	7		3	1		
Age began College	4	4	5	6	3		1	
Difference between year completed GED and enrolled NSCC								
Same year	+1	+2	+3	+4	+5	+6	+7	+10
	7	4	3	2	2	1	1	4

INDUSTRIAL TECHNOLOGY (N=4)

	16-20	21-25	26-30	31-35	36-40	41-50	51-60+
Age took GED	2			1		1	
Age began College	1		1		1	1	
Difference between year completed GED and enrolled NSCC							
Same year	-1	+8					
	2	1	1				

3. GED scores most likely cannot be used as cumulative grade point average (CGPA) predictors (i.e., those with higher GED scores will not necessarily earn higher CGPAs). Evidence: the GED scores of 27 of the students in the survey sample who earned their GED at the NSCC Testing Center were compared to cumulative grade point averages.

The total range of GED scores for the group of 27 students who earned their GED at NSCC was 225 to 328. The range of those earning a 3.00 to 4.00 was 226 to 328. The range of those earning a 2.00 to 2.99 scores were 225 to 325.

Of 17 students enrolled in a grouping of Human Services, Health, and Liberal Arts and Special Program

areas, the average for the student at 3.00 to 4.00 was 270 and at 2.00 to 2.99, the average GED score was 274.

Of the ten students enrolled in the grouping of Office Technology, Business, and Industrial Technology programs, of those earning a 3.00 to 4.00, the average was 271, and those at 2.00 to 2.99, 280. (See Chart XI., Comparison Analysis in Relation to Cumulative Grade Point Averages and GED Scores.)

CHART XI. COMPARISON ANALYSIS IN RELATION TO CUMULATIVE GRADE POINT AVERAGES AND GED SCORES

N = 27	3.00 - 4.00	2.00 - 2.99	Enrolled
HUMAN SERVICES	226 - 272	225	
HEALTH	245 - 309	245	
LIBERAL ARTS AND SPECIAL PROGRAMS	235 - 328	270 - 325	17
OFFICE TECHNOLOGY	267	252	
BUSINESS	243 - 306	269 - 288	
INDUSTRIAL TECHNOLOGY	265 - 273	309	10
TOTAL STUDENTS	16	11	27

4. Most GED recipients are working and have family responsibilities. Working part-time time seems to have no influence on academic achievement, whereas working full-time has a negative influence.

Ninety-five percent or 83 students indicated that they were working while attending college. Thirty-two percent or 28 students responded that they worked full-time; 34 percent or 30 students worked part-time and 29 percent or 25 students did not indicate work status. Five percent or four students did not answer the question.

Analysis of the information by academic cluster grouping showed that of the students in the grouping with higher CGPAs, 27 percent worked full-time and 42 percent, part-time. Of the students with the lower

CGPAs, 42 percent worked full time and 26 percent part-time. I concluded that working part-time has little effect on CGPAs, but that working full-time has a negative influence. (See Chart XII. A., Comparison Analysis: Profile of Work as Full or Part-time by Academic Cluster Grouping.)

CHART XII. A. COMPARISON ANALYSIS: PROFILE OF WORK AS FULL OR PART-TIME BY ACADEMIC CLUSTER GROUPING

	Total Responses	Work		Did not Answer
		Full	Part	
GROUP I (N = 52)				
Human Services	24	7	9	8
Health	18	1	4	3
Liberal Arts and Special Programs	20	6	9	5
	52	14 27%	22 42%	16 31%
GROUP II (N = 31)				
Office Technology	6	2	1	3
Business	21	8	6	7
Industrial Technology	4	3	1	0
	31	13 42%	8 26%	10 32%
TOTAL	83	27 33%	30 36%	26 31%

To verify the statements regarding work and to analyze effect from another perspective, I asked if the student supported his/herself and if he/she had financial responsibility for others. Fifty-two percent or 45 students responded "yes;" 44 percent or 38 students responded "no." Four percent or four students did not answer the question. I must presume that the 44 percent who responded "no" were either supported by their spouses/families or received some kind of aid.

I also asked if they had financial responsibility for others. Fifty-six percent or 49 students responded "yes;" 39 percent or 34 students responded "no;" and

five percent or four students did not answer the question. (See Chart XII. B., Comparison Analysis: Financial Responsibilities for Self and Others.)

CHART XII. B. COMPARISON ANALYSIS: FINANCIAL RESPONSIBILITIES FOR SELF AND OTHERS (N = 87)

	Support Self			Responsible for Others			
	Yes	No	No Ans.	Yes	No	No	Ans.
GROUP I							
Human Services	15	10	0	18	6	1	
Health	3	5	0	4	4	0	
Liberal Arts and Special Programs	12	7	1	10	9	1	
	30	22	1	32	19	2	
GROUP II							
Office Technology	3	3	1	3	3	1	
Business	9	12	2	13	9	1	
Industrial Technology	3	1	0	1	3	0	
	15	16	3	17	15	2	
	45	38	4	49	34	4	
	52%	44%	4%	56%	39%	5%	

5. In a multi-campus setting, attendance of classes at two campuses seems to have little effect on CGPAs. Evidence: Student Survey Sample.

Students were asked to identify which campus they attended. Eight-five students responded. Two students did not answer the question. Sixty-two percent or 53 students attended one campus only: 34 responded Beverly; 19 responded Lynn. Thirty-eight percent or 32 students responded both campuses.

Forty-seven respondents had earned a 3.00 to 4.00. Fifty-three percent or 25 students attended one campus only and 47 percent or 22 students, attended both. For students with the higher CGPAs of 3.00 to 4.00, it made no difference whether they attended one or both

campuses. But with those with CGPAs of 2.00 to 2.99, 71 percent or 27 students attended one campus only and 29 percent or 11 students attended both. (See Chart XIII. A., Campus Attendance: 3.00 - 4.00 CGPAs and Chart XIII. B., Campus Attendance: 2.00 - 2.99 CGPAs.)

CHART XIII. A. CAMPUS ATTENDANCE: 3.00 - 4.00 CGPAs (N = 47)

	Beverly Only	Lynn Only	Both
<u>GROUP I</u>			
HUMAN SERVICES	6	7	9
HEALTH	4	0	1
LIBERAL ARTS AND SPECIAL PROGRAMS	5	0	3
	15	7	13
<u>GROUP II</u>			
OFFICE TECHNOLOGY	0	0	2
BUSINESS	2	1	5
INDUSTRIAL TECHNOLOGY	0	0	2
	2	1	9
	<u>17/36%</u>	<u>8/17%</u>	22/47%
	25/53%		

Of the 38 students earning a 2.00 to 2.99, 71 percent attended one campus only and 29 percent attended both. (See Chart, XIII. B., Campus Attendance: 2.00 - 2.99 CGPAs, page 75.)

CHART XIII.B. CAMPUS ATTENDANCE: 2.00 - 2.99 CGPAs (N = 38)

	Beverly Only	Lynn Only	Both
GROUP I			
HUMAN SERVICES	1	0	2
HEALTH	2	0	0
LIBERAL ARTS AND SPECIAL PROGRAMS	5	3	3
	8	3	5
GROUP II			
OFFICE TECHNOLOGY	0	2	3
BUSINESS	1	4	2
INDUSTRIAL TECHNOLOGY	1	0	1
	10	6	6
	<u>18/47%</u>	<u>9/24%</u>	11/29%
	27/71%		

6. Most successful students will drive to the campus rather than use public transportation. Those students who use public transportation appear to have lower cumulative grade point averages.

I asked if they used public transportation to attend college. Eighteen percent or 16 students responded "yes," and 82 percent or 71 students responded "no."

Fifty percent or eight students enrolled in Human Services, Health, and Liberal Arts and Special Programs and 50 percent or eight students in Office Technology, Business, and Industrial Technology used public transportation. While I felt the sample would be too small a number to analyze for conclusive evidence as to the effect on cumulative grade point average by the use of public transportation as opposed to driving, I also felt that an analysis was in order to suggest a hypothesis for further study.

Looking at the CGPAs of the eight students in the Human Services, Health, and Liberal Arts and Special Programs grouping, I found three had earned a 3.00 to 4.00 and five, a 2.00 to 2.99; the CGPAs of the eight in the Office Technology, Business, and Industrial Technology grouping, eight had earned a 2.00 to 2.99. (See Chart XIV., Use of Public Transportation In Relation to Cumulative Grade Point Averages.)

CHART XIV. USE OF PUBLIC TRANSPORTATION IN RELATION TO CUMULATIVE GRADE POINT AVERAGES

	PUBLIC TRANS	SPECIFIC BY CGPA	
	YES	3.00 - 4.00	2.00 - 2.99
GROUP I (N = 8)			
HUMAN SERVICES	4	2	2
HEALTH	0	0	0
LIBERAL ARTS AND SPECIAL PROGRAMS	4	1	3
	8	3/38%	5/62%
GROUP II (N = 8)			
OFFICE TECHNOLOGY	2	0	2
BUSINESS	6	0	6
INDUSTRIAL TECHNOLOGY	0	0	0
	8	0	8/100%

G. STEP 6: COMPARE FINDINGS WITH THOSE RESULTS OF STUDIES PUBLISHED TO DATE.

1. Achievements of 160 students in General Sample and 87 students in Survey Sample: Review of Cumulative Grade Point Averages in relation to academic programs, division of enrollment and attendance pattern.

GED recipients are highly successful and high academic achievers in college.

Prior to embarking on this research adventure, I conducted a literature search and found no data

which described the success of GED students in colleges and universities.

According to Bean and Metzner, who have conducted an extensive review of the research:

The need for additional research about the attrition of older, part-time and commuter undergraduate students enrolled in courses for college credit has been well documented. (Knoell, 1966; Lenning, Beal & Sauer, 1980; Tinto, 1975, 1982; Zaccaria & Creaser, 1971). Although older and part-time students have sometimes been devoted exclusively to these non-traditional students beyond a simple tabulation of the dropout rate. (John P. Bean and Barbara S. Metzner, "A Conceptual Model of Non-Traditional Undergraduate Student Attrition," Review of Education Research, Winter, 1985, Volume 55, No. 4., p. 485.)

However, Bean and Metzner do look at some of the causes for attrition. Consequently, some of the same factors that I studied which can be considered as related to retention are discussed in their presentation. (Bean & Metzner, pp. 485-540.)

2. Whether the student enrolls in the Day Division only or attends both Days and Evenings does not influence cumulative grade point averages.
No literature located.
3. Whether a student attends consecutive semesters or takes one or two semesters off is irrelevant.
No literature located.

SIGNIFICANT FACTORS

1. Self-motivation is a key factor in college success for students starting with a GED. Successful students are aware of college opportunities, having reviewed brochures/catalogues, and made a decision to enroll prior to obtaining a GED.

This is supported by all authorities in the field of education. Douglas R. Whitney supports this statement in his September, 1986 memorandum to GED Administrators and State Directors of Adult Education, referencing the University of Wisconsin Study (Reported May 14, 1986; Chronicle of Higher Education).

Whitney states that 30 percent of the adults who seek a GED

... are motivated chiefly by their wish to pursue some post-secondary program of education or training. (He indicates 40 percent are motivated for job-related reasons, one-fourth for personal satisfaction, and many for multiple reasons.)

Bean and Metzner cite more than 21 studies that indicate that direct relationship exists between student initial educational goals and persistence. (Bean and Metzner, p. 495.)

2. **The support of family and friends, and the support of college staff are major factors in maximizing GED completion, enrollment, and continued attendance in college.**

In the case of the successful GED students, they have, indeed, received support from the referral to college stages and through completion of at least a second semester. For example, many of the successful students stated they were referred by family and friends and indicated they had established positive relationships with faculty and staff. The research does not agree that the support of college staff is significant.

Bean and Metzner cite references which indicated that the support of parents, spouses, and friends probably had a greater influence on persistence for non-traditional students than for traditional students. They specifically reference the models of Spady (1970) and Tinto (1975) which they state shows that outside encouragement is more significant than internal support. Although they indicate they do not wish to imply that no internal support exists for non-traditional students, they state that few empirical studies employing friends' support as a variable are available.

It is most interesting to compare Wilson's findings on the personalogical profile of community college-high school equivalency students with our findings. (Russell C. Wilson, "Personalogical Profile of Community-College High School Equivalency Students," WIN, pp. 52, 59.) It would appear that Wilson views GED recipients

motivation as low in that GED recipients might have multiple problems.

Based on an analysis of the results of the Adjective Check List of a sample of 142 college-enrolling GED recipient students compared to test norms for college freshmen, Wilson concludes that the GED student is more anxious, worried, and less self-confident. (H.G. Gough, The Adjective Check List, Palo Alto, California: Consulting Psychologists Press, 1952.)

Wilson's point is that it is, therefore, critical that the adult educator take the whole student into consideration in providing support and encouragement in addition to instruction.

3. **Consistent contact with one Program Coordinator and/or Advisor is a major factor in maximizing opportunity for success.**

Bean and Metzner cite Lenning, et al (1980) as suggesting that advising is related to persistence; and Crockett (1978) as focusing on length and frequency of contact, topics covered, accessibility, and advisor's knowledge of the institution as related to persistence.

Several empirical studies are cited as rendering inconsistent results, particularly regarding student evaluation of the services. The research finding relevant to students' stated reasons for dropping out of community institutions is in agreement with our findings in that students felt that "improved advising services would have assisted them in remaining in college." (e.g., Davis, 1971; Gorter, 1978; Smith, 1980; Taylor, 1982; Tweddale, 1978; White, 1972) Bean and Metzner, p. 501.)

4. **Successful students use college services and are satisfied with services received.**

Richard B. Schinoff has written a chapter entitled "Advisement and Counseling Challenges Facing Community College Educators: The Miami-Dade Experience for Counseling, A Crucial Function for the 1980's," (Editors: Thurston, A.S., and W. A. Robbins, New Directions in Community Colleges, No. 3, San Francisco, Jossey-Bass, September, 1983.)

Schinoff discusses services that make a dif-

ference, emphasizing that our GED students must "feel that the help they receive in assessment, advisement, and counseling is worthwhile."

He further emphasizes that early academic warnings with mid-term progress reviews can provide a counselor with the opportunity to prescribe actions such as reduced course loads or special tutoring. (p. 69)

**OTHER RELEVANT FACTORS TO BE TAKEN INTO CONSIDERATION
WHEN SETTING UP PROGRAMS TO FACILITATE SUCCESS
FOR ALL GED RECIPIENTS IN HIGHER EDUCATION**

1. **Attendance in a formal GED preparation program AND formal grade level completion above grade 10 facilitates success in higher education.**

The percent of the survey sample individuals who completed grades 10 and 11 was slightly higher than the program totals of GED Testing Service Centers throughout Canada and the United States.

According to the student sample, 36 percent completed grade 10 and 36 percent, grade 11. According to the 1987 GED Statistical Report, 30.7 percent of all students who successfully complete the battery have completed grade 10 and 29.9 percent have completed grade 11. (Note: There were no students at grade 12 completion level in the survey, whereas, the GED Testing Services list 6 percent.) (The 1987 GED Statistical Report, The General Educational Development Testing Service of the American Council on Education, One Dupont Circle, Washington, D.C., 20036, p. 14.)

2. **Age of completing GED and age of GED student enrollment in college are not significant factors in determining success.**

The age of completion of GED for the student sample group was not dissimilar from the total GED service area, including United States and Territories, and Canada. The figures show that 41 percent of the 87 students were ages 25 and over when they completed the GED. GED Services show 53.5 percent were ages 25 and over. (The 1987 GED Statistical Report.)

Age of college enrollment at North Shore Community College for the GED sample compared to the Fall of

1987 Day/Division of Continuing Education combined figures showed these students are not dissimilar in age from the general population of all NSCC students. Sixty-two percent of the GED sample were 26 and over and 62 percent of the Day/DCE combined group were 25 and over. This was the first study showing combined Day/DCE ages. However, Day Division age figures for Fall, 1985; Fall, 1986; and Fall, 1987 are nearly equivalent. (Age Characteristics: Fall, 1987 Student Population, Fall, 1987, Admissions Enrollment Report, Office of Planning and Research, North Shore Community College, p. 20.)

3. **GED scores most likely should not be used as cumulative grade point average predictors (i.e., those with higher GED scores may not necessarily earn higher CGPA's).**

(Note: The findings of this study cannot be considered conclusive as the sample of students with GED scores in our survey was small and that a standard statistical method was not used.)

Whitney, in commenting on the University of Wisconsin Study, indicates that other studies have shown correlations (Whitney, "Comments and Suggestions Concerning the Studies," "Equivalency Certificates - Report to the Superintendent: Findings and Recommendations" and "Performance of GED Holders Enrolled at the University of Wisconsin's Thirteen Campuses, 1979-1985," Douglas R. Whitney, May 10, 1986, pp. 8,9.)

4. **Most GED recipients are working and have family responsibilities. Working part-time seems to have no influence on academic achievement, whereas working full-time may have a negative influence.**

According to Bean and Metzner, the research concurs. Kuh and Ardaiole (1979) found older students work more hours per week than traditional students and Harwich and Kazlo (1973) found that commuter students were more likely to be employed.

More importantly, as Bean and Metzner indicate:

Astin (1975) reported that students who were employed fewer than 20 hours per week exhibited greater persistence in college than unemployed students. Most researchers agreed that employment in excess of 20-25 hours per

week was negatively related to persistence.
(p. 503)

5. In a multi-campus setting, attending classes at two campuses seems to have little effect on CGPA's. No literature located.
6. Most successful students will drive to the campus rather than use public transportation. No literature located.

H. STEP 7: MAKE RECOMMENDATIONS TO LOCAL, REGIONAL, AND NATIONAL EDUCATIONAL LEADERS.

1. RECOMMENDATIONS

Recommendations derived from analysis have implications for all educational leaders involved in GED Programming.

First, and most important, GED recipients must be made aware that colleges expect them to succeed. If data is available, college newspapers can publish articles, and admission counselors can share success stories. It is the responsibility of GED educators in preparation programs and testing centers as well as college personnel to accept the mandate to prove GED students can and do succeed.

Second, college admissions officers and counselors must develop appropriate approaches for recruiting GED recipients and other so called "non-traditional students." College recruitment must go beyond visiting high schools and hosting college visitation days. Not only must students be appropriately recruited and provided with the information regarding enrollment but also be given assistance in planning to complete a college degree. For the past twenty years educational leaders have discussed recruiting "non-traditional students," defining them as older and working adults. On rare occasions, they have been referred to as "GED recipients." While a number of special/college enrollment programs have been established for specific populations such as the low income, very little has been done to study mechanisms for the recruitment and retention of GED students.

Third, it is important that the American Council on Education, the regulatory agency for General Educational Development Testing Services, provide information regarding the credibility of the GED and the promise of equivalent opportunity in higher education.

Fourth, college and GED preparation program linkages must be established. College information must be provided to pre-GED applicants attending preparation programs. Ideas for introducing college attendance might include reviewing college brochures and catalogues; college instructors addressing GED classes; and colleges inviting GED preparation students to college campuses for special tours/orientations or to sit in on classes, etc. GED instructors can facilitate development of friendships or peer support systems among individuals who are interested in College.

Fifth, test centers must provide College information to GED applicants and recipients. College enrollment should be encouraged for all GED recipients with passing scores, not just those attaining the higher scores.

Sixth, GED preparation program and college counselors should help students plan for college. Items to be included in discussion should be strategies for earning funds through part-time work and financial aid. When the student must work full-time, the counselors should help the student look carefully at plans for course load. It should be emphasized that most colleges are flexible with enrollment plans; allow attendance across divisions, part-time and full-time, and do not require consecutive semester enrollment for program completion.

Seventh, colleges must provide improved systems for faculty/counselor linkages to students which insure contact from enrollment through graduation. It is essential that each student have the opportunity for one-on-one meetings.

Finally, valid information must be generated to define the GED recipient population attending college and succeeding. When educators are able to share data, skepticism about the GED decreases. Consequently, barriers to higher education for GED Recipients are removed.

2. DISCUSSION

The number of GED recipients continues to grow. According to the American Council on Education, statistics pertaining to the United States and its territories show that the number of persons earning a high school equivalency certificate has increased from 427,075 in 1985 to 471,498 in 1988.

Colleges, particularly community colleges, need to address GED recipients as a target group in institutional enrollment and retention plans. Colleges need to verify the numbers of students involved by reviewing enrolling and graduating class transcripts in order to determine the percentage of GED recipients who are part of this population.

The story behind the success of the sample group of 160 students who enrolled at North Shore Community College after earning a GED is an important one. It is important for the researcher and Director of the Center for Alternative Studies in managing a GED preparation and testing program which assists recipients in making the transition to College enrollment. It is important for the College as a whole to have data available for use in recruitment and retention planning.

The story provides valid information to the Testing Center to use in encouraging those who have not yet earned an equivalency credential to do so and to attend College. It also provides information to the College so that it can maximize access and retention for all GED recipients.

Discussion of the four major factors which lead to GED recipients' success, demonstrates how information can be used to provide a basis for program improvement. (The six relevant factors will not be discussed herein.) For example, two factors of significance were that the primary access route of GED recipients was through referral of family/friends and College Staff and that success was not based on consecutive semester enrollment nor division of enrollment.

The first message for the GED Testing Center and North Shore Community College is to improve linkages with area GED preparation programs to ensure opportunities for potential college students to share information. Discussions among

individuals with similar educational goals can be encouraged at the pre-GED educational level. In other words, a network of friends can be developed.

In addition, students can become familiar with the requirements of North Shore Community College and create an appropriate educational plan. Potential students can be informed that it is possible to leave school and return after an absence of a semester or two and that it is possible to transfer from full-time day division status to part-time evening studies without jeopardizing performance.

The second message for the Testing Center and College is that in providing GED access the role of College Staff must be recognized. College Staff must have enough information about GED services to be able to successfully refer colleagues, neighbors, and friends. With the results of this study staff now have more information pertaining to the credibility of GED. They can add to this by sharing success stories of others.

The message for the general College is that support systems need to be refined. The study made it clear that success was directly related to students having consistent contact with the same program coordinator and advisor within the academic discipline. It is suggested that enrollment and retention planning maximize the use of human resources. Attention to individual progress must be ensured across each division. In this way, student problems can be readily addressed and referrals can be made to College services.

The study also identified that students had indicated that they had used college services and were satisfied with them. The Faculty surveyed indicated that GED recipients willingly admit that problems are occurring, ask for help, and are grateful for referrals. The implication is that all Faculty must be applauded for the conscientious attention to making referrals to services and College service staff must be applauded for deliverance of appropriate assistance.

Many ideas to facilitate college access and retention for GED recipients can be generated from our study and I will do this. It is also my

intention to encourage further research to enhance such ideas both at North Shore Community College and in other colleges. I am not overlooking the fact that the study was limited to one group of GED recipients. Questions as to whether or not the factors are valid as stated for larger groups of students need to be answered.

Most important, in order for further research to occur, other data-bases are needed to generate additional information. For example, the progress of GED recipients needs to be compared with the progress of high school graduates. North Shore Community College does not yet have any data-base pertaining to cumulative grade point averages by program of study.

Human and material resources must be allocated. Empirical methods of study must be established to look at each identified factor of success. Finally, related variables must be determined, i.e., attitudes of staff and college personnel toward the credential.

Clearly, educational leaders need to review and evaluate the seven step research model, test it, and conduct comparative research. They also need to expand the process both in a qualitative and quantitative way.

It is my hope that the instruments available in the Appendix will be used many times over and the highlights of data and analysis which follows the Appendix be used to generate new ideas. Finally, it will be my pleasure to share the addendum of this research which details data collection and analysis.

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